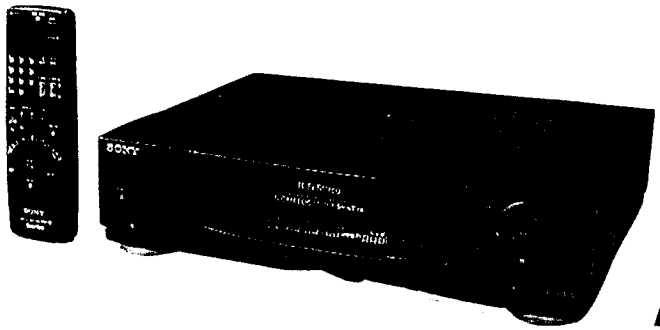
SLV-E500AP/E500CP/E500IT/E500UX/E500VP/E600B/E600VP/E700/E700AP/E700B/E700EX/E700IT/E700UX/E700VP/E800AP/E800BM/E800EE/E800EG/E800IT/E800NC/E800NP/E800VC

RMT-V159/V159A/V159B/V159D/V159E/V159H/V159J/V159K/V163/V163A

SERVICE MANUAL



UK Model
SLV-E500UX/E700UX

Italian Model
SLV-E500IT/E700IT/E800IT

Netherlands Model
SLV-E500AP/E700AP/E800AP

Germany Model
SLV-E500VP/E600VP/E700VP/E800VC

Spanish Model
SLV-E500CP/E800NP

Ireland Model
SLV-E700EX

East European Model
SLV-E800EE/E800EG

French Model
SLV-E600B/E700B/E800BM

North European Model
SLV-E700/E800NC

Abbreviated model name	All model names
E500	E500AP/E500CP/E500IT/E500UX/E500VP
E600	E600B/E600VP
E700	E700 : NC1/NC2, E700AP/E700B/E700EX/E700IT/E700UX/E700VP
E800	E800AP/E800BM/E800EE/E800EG/E800IT/E800NC/E800NP/E800VC

NC1/NC2 : North European

SPECIFICATIONS

System

Channel coverage
PAL:
CATV S01 – S05, S1 – S20 *(SLV-E700EX only)*
HYPER S21 - S41 *(SLV-E700EX only)*
UHF B21 – B69

RF output signal
UHF channels 28 – 55

Aerial out
75-ohm asymmetrical aerial socket

Inputs and outputs

EURO-AV (LINE 1)
21-pin
Video input: pin 20
Audio input: pins 2 and 6
Video output: pin 19
Audio output: pins 1 and 3

EURO-AV (LINE IN 2)
21-pin
Video input: pin 20
Audio input: pins 2 and 6

AUDIO OUT
Phono jack (2)
Rated output level: –7.5 dBs (0 dBs = 0.775 Vrms)
Load impedance: 47 kilohms
Output impedance: less than 10 kilohms

General

Power requirements
220 – 240 V AC, 50 Hz

Power consumption
25 W

Operating temperature
5°C to 40°C

— continued on next page —

MICROFILM

VIDEO CASSETTE RECORDER

SONY®

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http://www.manualdirectory.co.uk

Storage temperature
-20°C to 60°C

Dimensions
Approx. 430 x 103 x323 mm (w/h/d)
including projecting parts and controls

Mass
Approx. 5.2 kg

Supplied accessories

Remote commander (1)
R6 (size AA) batteries (2)
Aerial cable (1)
Audio cable (1)
Mains lead (1)

Design and specifications are subject to change without notice.

The remote commander used for each model is as follows.

- RMT-V159 : SLV-E800AP/E800EE/E800EG/E800NC/E800NP/E800VC MODEL
- RMT-V159A : SLV-E800BM MODEL
- RMT-V159B : SLV-E600VP/E700 : NC1/NC2, E700AP/E700VP MODEL
- RMT-V159D : SLV-E600B/E700B MODEL
- RMT-V159E : SLV-E500AP/E500CP/E500VP MODEL
- RMT-V159H : SLV-E800IT MODEL
- RMT-V159J : SLV-E700IT MODEL
- RMT-V159K : SLV-E500IT MODEL
- RMT-V163 : SLV-E700EX/E700UX MODEL
- RMT-V163A : SLV-E500UX MODEL

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.

3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

5. Check the B+ voltage to see it is at the values specified.

6. Flexible Circuit board Repairing
   - Keep the temperature of the soldering iron around 270°C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SERVICE NOTE

1. REMOVAL OF DRUM ASSEMBLY

1) Remove the screw ① (P3×8)
2) Remove the shaft ground assembly ②.
3) Remove three screws ③ (P3×6).
4) Remove the drum assembly④.

Note: When attaching the drum assembly, be careful not to blur the contacting surface with fingerprint or like.

When attaching the shaft ground assembly, be careful not apply force to the spring section of it.

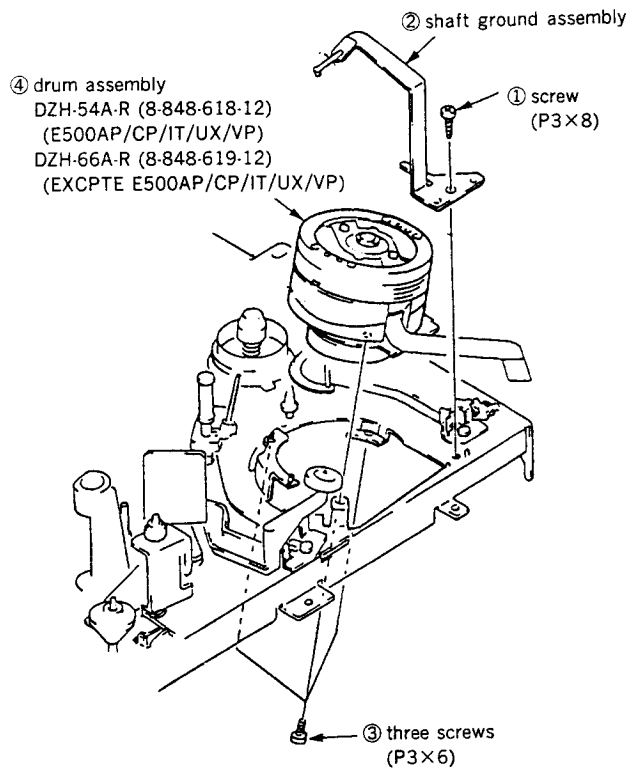


Fig.1.

2. UPPER DRUM REPLACEMENT

2-1. Removal of Upper Drum

1) Remove the screw ① (P3×8).
2) Remove the shaft ground assembly ②.
3) Completely remove the rotary upper drum board and desolder the soldering indicated by the arrows. (16 points)
4) Remove the screws ③ (PSW 3×8) and tape out the rotary upper drum assembly in the direction of arrow. (See Fig. 3.)
   If it is difficult, remove by shaking the rotary upper drum gradually.

Note: If the drum can not be removed,check whether the solders have been removed or not again.

2-2. Mounting Upper Drum

1) Mount the rotary upper drum assembly by aligning marked ➡ with marked ⇒ of rotary transformer board (lower drum) so that the screw holes of both upper and lower drums match.

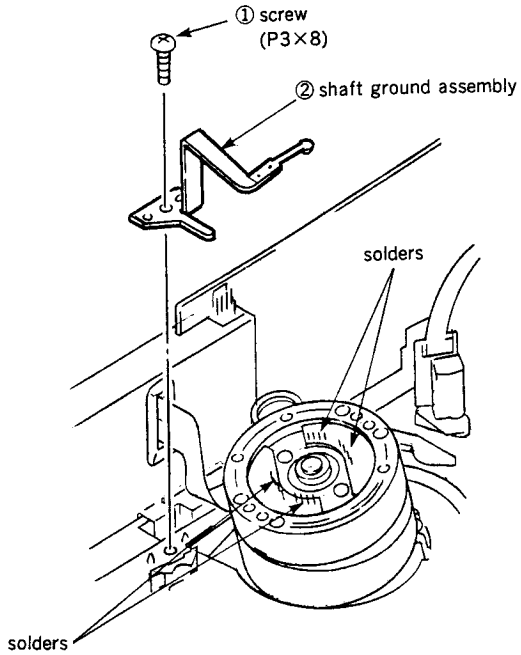


Fig. 2.

Note: When inserting the rotary upper drum assembly into the lower drum, be careful not to blur the contacting surface with fingerprint or like.

2) If it is difficult, mount the upper drum by shaking it gradually.

Note: Be careful not to damage the head.
Make sure that the upper drum is tightly inserted.

3) Tighten two screws ③ (PSW3×8).

Note: Temporary tighten two screws, After making sure that upper drum is tightly inserted, tighten the screws.

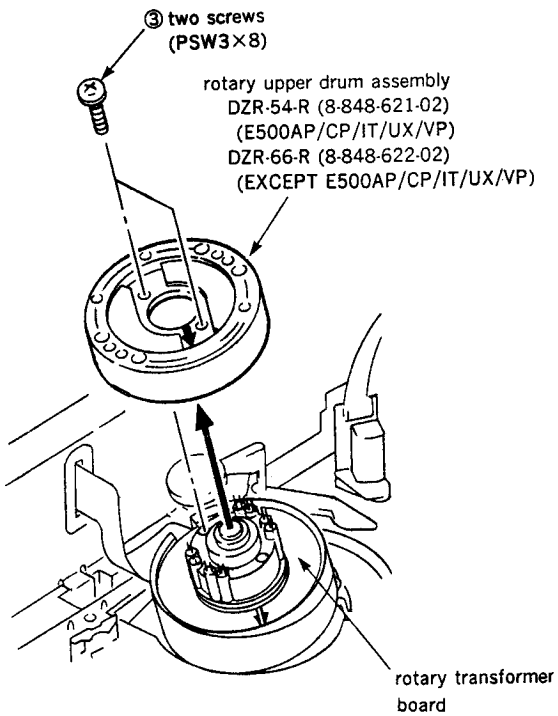


Fig. 3.

4) Solder 16 points on the rotary upper drum board. (See Fig. 2.)
5) Fix the shaft ground assembly ② using the screw ① (P3×8) so that the protrusion of the shaft ground assembly end contacts the center of the drum shaft, (See Fig. 2.)
   Note: When attaching the shaft ground assembly, be careful not to apply force to the spring section of it.
6) Tighten the screw ① (P3×8).

3. PERIODIC CHECK AND REPLACEMENT

In order to obtain the best performance from this unit and make full use of its capabilities, and to extend the life of the unit and tapes, it is recommended that the following periodic checks and maintenance be performed.

* The following must be done after every repair regardless of how many hours the user has operated the machine.

3-1. CLEANING OF ROTATING HEAD DISK ASSEMBLY

1) Press a chamois cloth (Jig Ref. No. J-9) which has been dipped in cleaning fludi (Jig Ref. No. J-8) lightly against the rotating drum assembly, then do the cleaning by slowly rotating the rotating head disk by hand. (Never try to clean by using the motor to turn it.)
2) Never try to clean by moving the chamois cloth at a vertical angle to the head tip. There is a very great danger of damaging the head tip if this is done.

3-2. CLEANING OF THE TAPE MOVEMENT SYSTEM

1) Clean the surfaces which the tape contacts during its movement (tape guide, drum assembly surface, capstan, pinch roller, etc.) with a chamois cloth that has been dipped in cleaning fluid.

3-3. CLEANING THE DRIVE SYSTEM

1) Clean the driving parts with a cloth that been dipped in cleaning fluid.

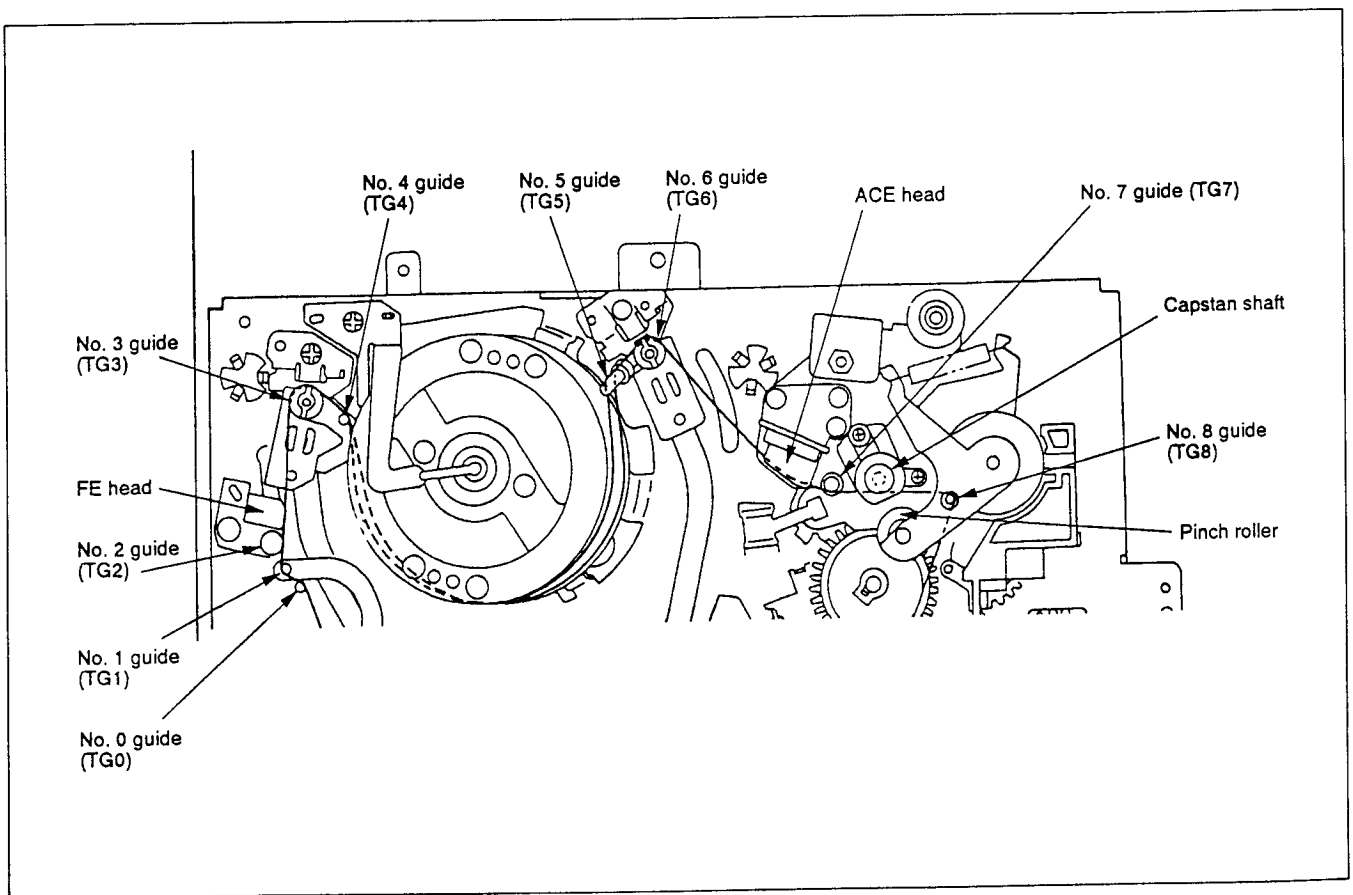


Fig. 4. Parts requiring cleaning

Welcome!

Thank you for purchasing the Sony Video Cassette Recorder (VCR). Here are some of the features you'll enjoy with your VCR:

- EASY SET UP that guides you through necessary VCR setups sequentially through the TV screen
- Optimum Picture Control (OPC) that automatically optimises recording and playback performance
- Dual Mode Shuttle (DMS) ring for easy playback and search operations
- VIDEO Plus+* system that lets you quickly and easily preset the VCR to record programmes

* VIDEO Plus+ and PlusCode are Trademarks of Gemstar Development Corp. VIDEO Plus+ system is manufactured under licence from Gemstar Development Corporation.

Compatible colour systems
This VCR is designed to record and play back using the PAL colour system. Recording of video sources based on other colour systems cannot be guaranteed.

Checking your model name

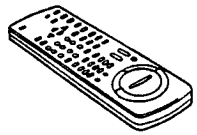
The instructions in this manual are for the SLV-E700EX and SLV-E700UX. Check your model number by looking at the rear panel of your VCR. The SLV-E700EX is the model used for illustration purposes. Any difference in operation is clearly indicated in the text, for example, *"SLV-E700UX only."*

1-1

Step 1 Unpacking

Check that you have the following items:

- **Remote commander**

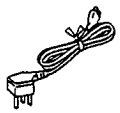


- **R6 (size AA) batteries**

- **Aerial cable**

- **Audio cable**

- **Mains lead**



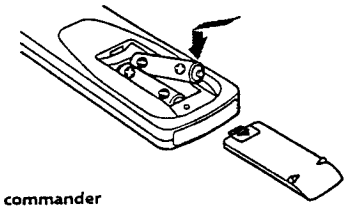
SLV-E500/E600/E700/E800 SERIES

SECTION 1
GENERAL

This section is extracted from SLV-700EX/UX instruction manual.

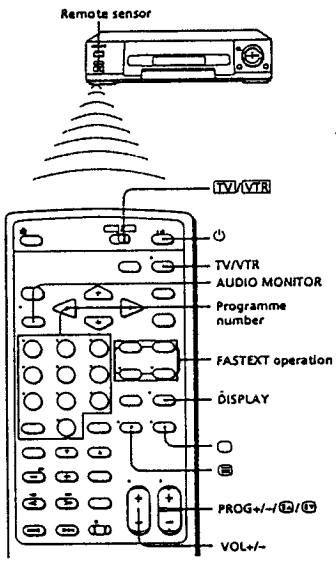
Step 2 Setting up the remote commander

Insert two R6 (size AA) batteries by matching the + and – on the batteries to the diagram inside the battery compartment.



Using the remote commander

You can use this remote commander to operate this VCR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your TV.



To operate	Set TV/VTR to
the VCR	VTR and point at the remote sensor on the VCR
a Sony TV	TV and point at the remote sensor on the TV

TV control buttons

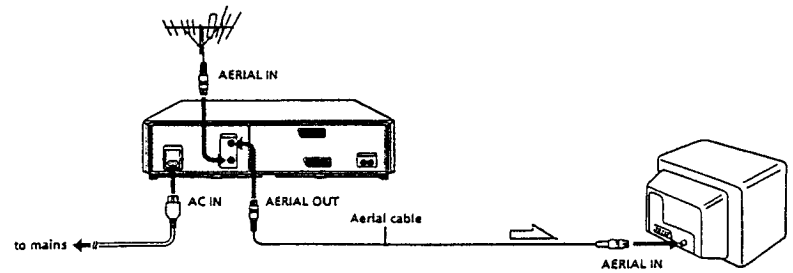
To	Press
Turn the TV into standby or active mode	⏻
Select an input source of the TV either from aerial in or from line in	TV/VTR
Select the programme position of the TV	Programme number
Switch to TV mode (Teletext off)	▢ (TV power/mode select)
Switch to Teletext mode	▣ (Teletext)
Change the programme position of the TV	PROG +/–
Increase (+) or decrease (–) the volume of the TV	VOL +/–
Select the sound	AUDIO MONITOR
Use FASTEXT	FASTEXT operation
Get on-screen display	DISPLAY
Change the Teletext page	⧉/⧉

Notes

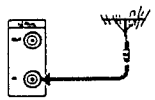
- With normal use, the batteries should last for approximately three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery with an old one.
- Do not use different types of batteries.

1-2

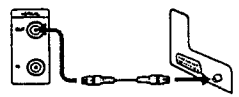
Step 3 Connecting the VCR



1 **Disconnect the aerial input cable from your TV and connect it to AERIAL IN of the VCR.**

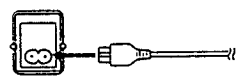


2 **Connect AERIAL OUT of the VCR and the aerial input of your TV using the supplied aerial cable.**



3 **Connect AC IN of the VCR and the mains supply using the mains lead.**

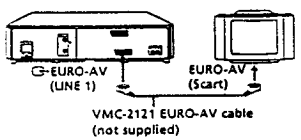
You've completed the basic hookup to watch and record TV programmes.



Additional connections

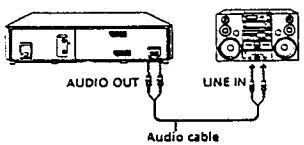
To a TV that has a EURO-AV (Scart) connector

This additional connection can improve picture and sound quality. Connect to the TV as shown on the right.



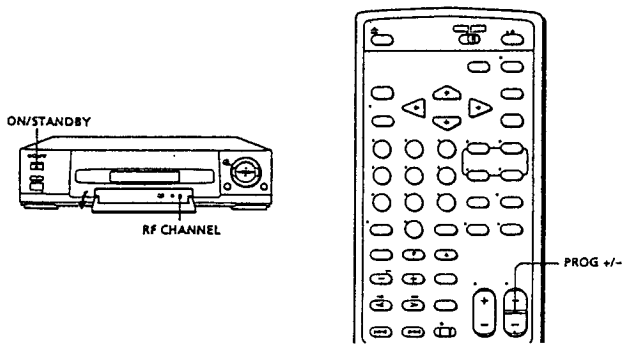
To a stereo system

You can improve sound quality by connecting to a stereo system as shown on the right.



Step 4 Tuning the TV to your VCR

If you have connected the VCR to your TV using the EURO-AV cable, skip this step.

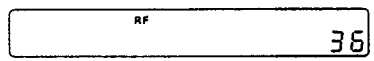


1 ON/STANDBY

Press ON/STANDBY to turn on the VCR.

2 RF CHANNEL

Press RF CHANNEL on the VCR.
The factory-preset RF channel appears in the display window.
The VCR signal is output through this channel to the TV.



3

Turn on your TV and select a programme position for video playback.

4

Tune the TV to the same channel as that shown in the display window so that a grey screen appears on the TV screen.
Refer to your TV manual for tuning instructions.
If the grey screen does not appear clearly, see "To obtain a clear grey screen" on page 9.

5 RF CHANNEL

Press RF CHANNEL.
You have now tuned your TV to the VCR. Whenever you play a tape, set the TV to the programme position selected in step 3 above.

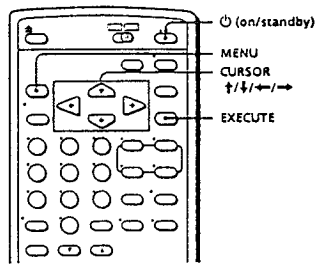
1-3

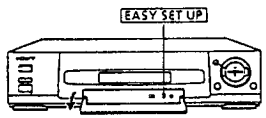
To check to see if the TV tuning is correct
Select the programme position for video playback on the TV and press PROG +/–. If the TV screen changes to a different programme each time you press PROG +/–, the TV tuning is correct.

To obtain a clear grey screen
If the grey screen does not appear clearly in step 4 above, press PROG +/– in step 4, while the RF channel is displayed, so that another RF channel appears. Then tune the TV to the new RF channel until a clear grey screen appears.

Step 5 Setting up the VCR sequentially (EASY SET UP)

Before using the VCR for the first time, set up the VCR using the EASY SET UP feature of this unit.
Using the EASY SET UP, you can set the TV channels, guide channels for VIDEO Plus+, and clock, guided by the sequence indicated on the TV screen.





1 ⏻

Press ⏻ (on/standby) to turn on the VCR.

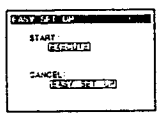
2

Turn on your TV and select a programme position for video playback.

3 EASY SET UP

Press EASY SET UP on the VCR.
The following screen appears on the TV screen.

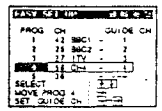
To cancel starting the EASY SET UP, press EASY SET UP.



4 EXECUTE

Press EXECUTE.
The ITP starts searching for all the receivable channels.
The ITP sorts the located channels appropriately and presets them to the programme positions. Some VIDEO Plus+ guide channels and station IDs may also be preset if the ITP can detect them.
During presetting, the channel being located is displayed on the TV screen.

When all the channels are preset, the following screen appears.



If necessary, you can add or disable the channels manually.
See "Tuning the VCR to TV channels manually" on page 14.

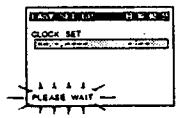
Note
Do not exit the EASY SET UP while the ITP is presetting channels.
If you do, repeat the EASY SET UP from the beginning.

5 CURSOR

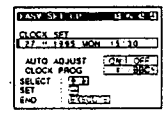
Using CURSOR ↑/↓/←/→, set the VIDEO Plus+ guide channels that could not be preset automatically, and change the programme positions of the stations. (If not necessary, skip this step.)
The setting procedures are the same as those described in "Setting up VIDEO Plus+ manually" on page 16 and "Changing the programme positions of the stations" on page 19.

6 EXECUTE

Press EXECUTE.
The Auto Clock Set starts searching for a TV station that carries the time signal and sets the clock time automatically. The date is also set if the date data is transmitted from the TV station.



When the clock setting is completed, the following screen appears.
If the VCR does not receive the time signal from any station, "1.1. 1995 SUN 0:00" appears and AUTO ADJUST is set to OFF.



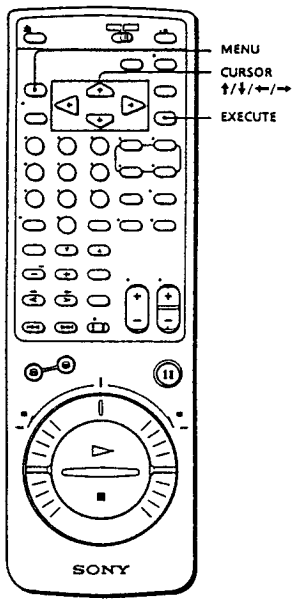
7 CURSOR

If necessary, adjust the date and/or time manually and change the station for Auto Clock Set using CURSOR ↑/↓/←/→.
The setting procedures are the same as those described in "Setting the clock manually" on page 12.

8 EXECUTE

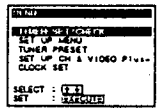
Press EXECUTE to finish the EASY SET UP operation.
A programme position appears on the TV screen.
The station ID may also appear if the VCR has detected it.

Setting the clock manually

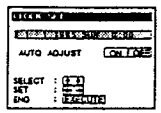


You must set the time and date on the VCR to be able to use the timer recording features properly. You can set the VCR clock using the menu.

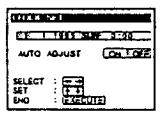
1 Press MENU.
The main MENU appears on the TV screen.



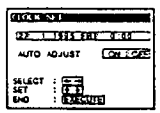
2 Press CURSOR ↑/↓ to move the cursor (▮) to CLOCK SET, then press EXECUTE.
The CLOCK SET menu appears.



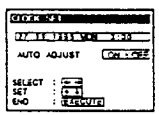
3 Press CURSOR → to highlight the day and the day of the week.



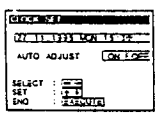
4 Press CURSOR ↑/↓ to set the day.
The day of the week is set automatically.



5 Press CURSOR → to highlight the month and set the month using CURSOR ↑/↓.



6 Set the year, hour and minutes in sequence, using CURSOR → to highlight the item to be set, and CURSOR ↑/↓ to select the digits.

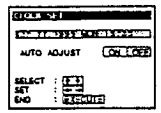


Note
- The menu disappears automatically if you don't proceed for more than a few minutes.

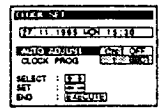
Tip
- To change the digits during setting, press CURSOR ← to return to the item to be changed, and select the digits using CURSOR ↑/↓.

Tip
- If you set AUTO ADJUST to ON, the Auto Clock Set is activated whenever the VCR is turned off. The date and time is adjusted automatically by making reference to the time signal from the station whose programme position is displayed in the "CLOCK PROG" row.
If you do not need the Auto Clock Set, highlight OFF.

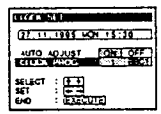
7 Press CURSOR → to confirm the setting.
The cursor (▮) appears in the leftmost column.



8 Press CURSOR ↓ to move the cursor (▮) to AUTO ADJUST, then press CURSOR ←/→ to highlight ON.



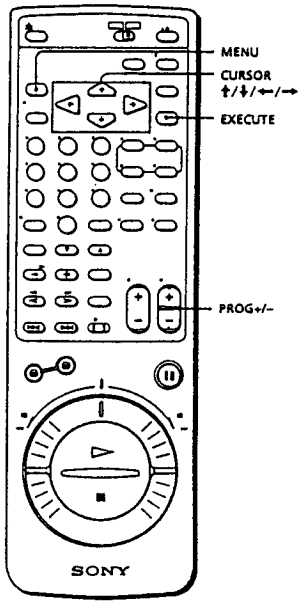
9 Press CURSOR ↓ to move the cursor (▮) to CLOCK PROG, then press CURSOR ←/→ repeatedly until the programme position of the station that carries the time signal appears.
If the VCR does not receive the time signal from any station, AUTO ADJUST returns to OFF automatically.



10 Press EXECUTE to start the clock.

Tuning the VCR to TV channels manually

You may have preset the receivable channels in your area in the EASY SET UP procedure (page 10). If some channels could not be preset automatically, you can preset them manually; if there are unwanted channels among the preset ones, you can disable the channels.

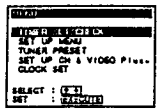


Notes

- The menu disappears automatically if you don't proceed for more than a few minutes.
- The station IDs are not preset in manual tuning.

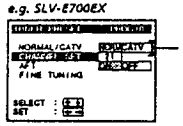
Presetting channels manually

1 Press MENU.
The main MENU appears on the TV screen.



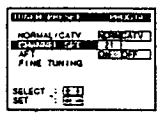
2 Press CURSOR ↑/↓ to move the cursor (▮) to TUNER PRESET, then press EXECUTE.
The TUNER PRESET menu appears.

e.g. SLV-E700EX

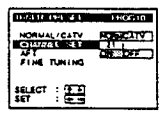


NORMAL/CATV selection is not provided with the SLV-E700UX.

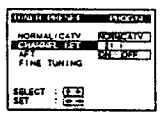
3 *(SLV-E700EX only)*
Press CURSOR ↑/↓/←/→ to move the cursor (▮) to NORMAL/CATV, then highlight NORM.
To preset CATV channels, highlight CATV.



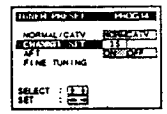
4 Press CURSOR ↑/↓ to move the cursor (▮) to CHANNEL SET.



5 Press PROG +/– to select the programme position.



6 Press CURSOR → to start tuning.
The VCR starts searching for a channel and displays the first one it finds on the TV screen. Press CURSOR ←/→ repeatedly until the channel you want is displayed.
The channels are scanned in the following order:
UHF B21 - B69
CATV S1 - S20 *(SLV-E700EX only)*
HYPER S21 - S41 *(SLV-E700EX only)*
CATV S01 - S05 *(SLV-E700EX only)*



If you know the number of the channel you want, press the number buttons. For example, for channel 43, first press "4" and then press "3."

7 To allocate another channel to another programme position, repeat steps 5 and 6.

8 Press EXECUTE to store all the allocated channels.

Disabling unwanted programme positions

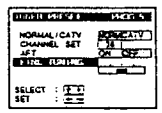
After tuning the TV channels, you can disable unused programme positions. Positions that are disabled will be skipped later when you press the PROG +/– buttons.

1 Press MENU, then select TUNER PRESET and press EXECUTE.
2 Select CHANNEL SET.
3 Press PROG +/– until the programme position you want to disable appears beside "PROG" on the TV screen.
4 Press number button "0" twice to display the number "0" beside CHANNEL SET.
5 Repeat steps 3 and 4 for other positions you want to disable.
6 Press EXECUTE.

If the picture is not clear

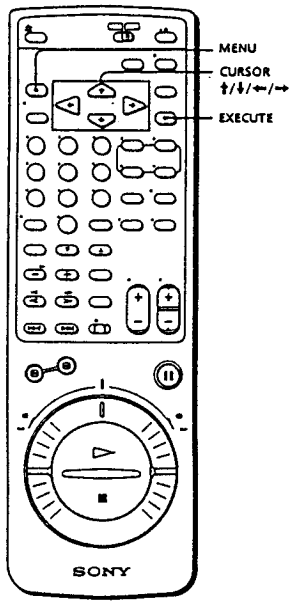
Normally, the Auto Fine Tuning (AFT) function automatically tunes in channels clearly. If, however, the picture is not clear, you may also use the manual tuning function.

1 Press PROG +/– to select the programme number for which you cannot obtain a clear picture.
2 Press MENU, then select TUNER PRESET and press EXECUTE.
3 Select FINE TUNING. The fine tuning meter appears.



4 Press CURSOR ←/→ to get a clearer picture, then press EXECUTE.
Note that the AFT (Auto Fine Tuning) setting switches to OFF.

Setting up VIDEO Plus+ manually



Note

- The menu disappears automatically if you don't proceed for more than a few minutes.

VIDEO Plus+ is a feature in Sony VCRs that simplifies the task of programming the VCR to make timer recordings.

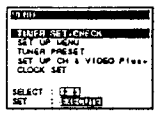
How VIDEO Plus+ works

Whenever you want to record a TV programme, all you need to do is look up the programme's "PlusCode," a number assigned to each programme that's published in TV guide magazines. Then, just enter the PlusCode of the programme you want and the VCR is automatically programmed to record that show. It's that simple. With VIDEO Plus+, you no longer have to go through a lengthy and often repetitive procedure when you set start and stop times, channel numbers, and dates. All this information is automatically sent to your VCR when you enter the programme's PlusCode.

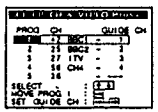
- If you want to record satellite broadcasts using VIDEO Plus+, see page 18.

Setting the guide channels

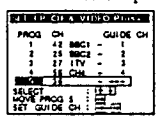
1 Press MENU.
The main MENU appears on the TV screen.



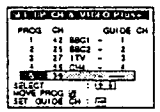
2 Press CURSOR ↑/↓ to move the cursor (▮) to SET UP CH & VIDEO Plus+, then press EXECUTE.
The SET UP CH & VIDEO Plus+ menu appears.
The preset channels are displayed on the screen. The station IDs and guide channels also appear if the VCR detected them in the EASY SET UP. "—" in the GUIDE CH column means that the guide channel has not been preset.



3 Press CURSOR ↑/↓ to move the cursor (▮) to the row on which you want to set the guide channel.
To display other pages for programme positions 6 to 30, press CURSOR ↑/↓ repeatedly.



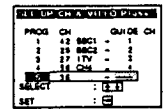
4 Press CURSOR → to highlight the TV channel and guide channel.



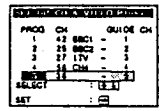
Notes

- If you use a satellite tuner connected via the EURO-AV (Scart) connector, leave the "GUIDE CH" column blank (—).
- If you inadvertently entered a guide channel number, press CURSOR ↑/↓ repeatedly to reset the "GUIDE CH" column to "—". "—" appears between 1 and 255.
- The VCR does not allow entering the guide channel number, if t he same number has been set.

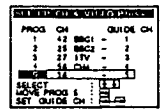
5 Press CURSOR → to highlight the guide channel only.



6 Press CURSOR ↑/↓ to select the guide channel number assigned in the programme guide.



7 Press CURSOR → to confirm the setting.
The cursor (▮) appears in the leftmost column.



8 To set the guide channel of another station, repeat steps 3 to 7.

If you want to change the programme positions of the stations, proceed to step 2 of "Changing the programme positions of the stations" on page 19.

9 When you've finished, press EXECUTE to exit.

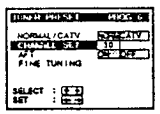
Setting up VIDEO Plus+ manually (continued)

Setting up VIDEO Plus+ for Satellite Broadcasts

When your satellite tuner is connected via the AERIAL IN connector, first you have to set the programme position for each satellite channel using the TUNER PRESET menu. Then set the guide channel number for each satellite channel using the SET UP CH & VIDEO Plus+ menu.

If your satellite tuner is connected via the EURO-AV (Scart) connector, you don't have to set programme positions nor guide channel numbers for satellite channels. Skip the following operations.

1 Turn on the satellite tuner.
2 Press MENU, then select TUNER PRESET and press EXECUTE.
3 Press PROG +/– to select a programme position you want to use for watching a satellite channel.
4 Select CHANNEL SET, then press CURSOR → to tune the VCR to the satellite tuner.
The channel number displayed beside CHANNEL SET is used for receiving all satellite broadcasts from the satellite tuner.

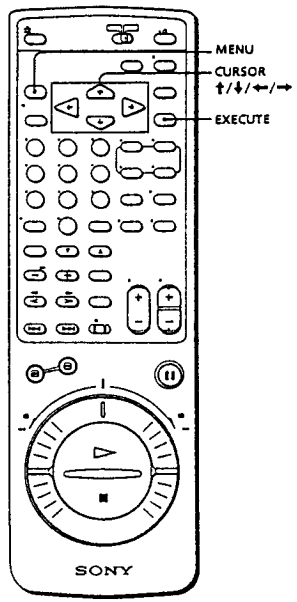


5 Press PROG +/– to select another programme position for another satellite channel, and press the number buttons to enter the same channel number as the one displayed in step 4.
Repeat this step for all satellite channels.
6 Set the guide channel number for each programme position assigned to the satellite channel, following the procedures in "Setting the guide channels" on pages 16 and 17.

Notes

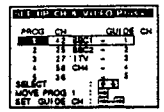
- With this operation, you have set up the VCR for satellite broadcasts. When you watch and record a satellite broadcast, select the desired channel on the satellite tuner.
- If you have two satellite tuners connected via the EURO-AV (LINE 1) and EURO-AV (LINE IN 2) connectors, the VIDEO Plus+ system automatically uses the satellite tuner connected via the EURO-AV (LINE 1) connector.

Changing the programme positions of the stations

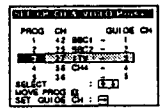


After setting the channels and VIDEO Plus+ guide channels, you can change the programme positions which are automatically assigned, as you like.

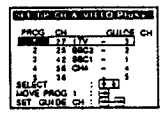
1 Press MENU, select SET UP CH & VIDEO Plus+ using CURSOR ↑/↓, and press EXECUTE.
The SET UP CH & VIDEO Plus+ menu appears.



2 Press CURSOR ↑/↓ to highlight the row on which you want to change the programme position, then press CURSOR →.
The TV channel and guide channel are highlighted.
To display other pages for programme positions 6 to 50, press CURSOR ↑/↓ repeatedly.



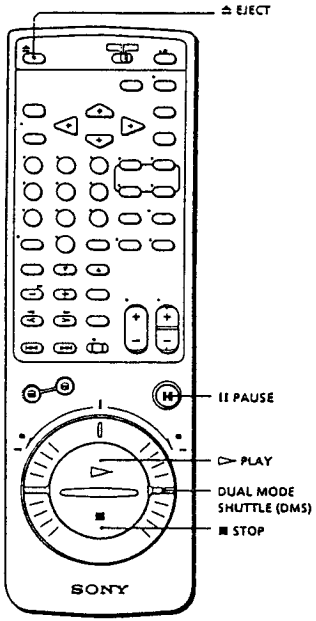
3 Press CURSOR ↑/↓ until the channel and guide channel row moves to the desired programme position, then press CURSOR ←.
The two rows exchange the positions.



4 To change the programme position of another station, repeat steps 2 and 3.

5 When you've finished, press EXECUTE to exit.

Playing a tape



Tip
- For further information on searching and playback functions, see "Playing/ searching at various speeds" on page 33.

This section shows you how to play back a video tape.

1 **Turn on your TV and tune in to the VCR:**
- If the TV is connected to the VCR using the EURO-AV cable, set the TV to video input.
- If the TV is connected to the VCR using only the aerial cable, set the TV to the programme position for the VCR.

2 **Open the drop down panel and insert a tape.**
The VCR turns on automatically. The tape starts playing automatically if its safety tab has been removed. (See page 25.)

3 **Press ▷ PLAY to start playing.**
When the tape reaches the end, the VCR automatically rewinds it to the beginning. (The power remains on.)

Additional tasks

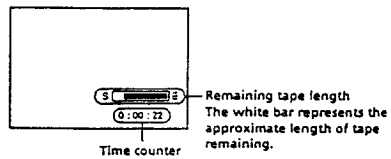
To	Press
Stop play	■ STOP
Pause play	II PAUSE
Resume play after pause	II PAUSE or ▷ PLAY
Search forward	Turn the DUAL MODE SHUTTLE (DMS) ring to ⊖ during playback
Search backward	Turn the DMS ring to ⊖ during playback
Fast-forward the tape	Turn the DMS ring to ▶▶ FF during stop
Rewind the tape	Turn the DMS ring to ◀◀ REW during stop
Eject the tape	≙ EJECT

Notes
- When a tape is reinserted, the counter returns to "0H00M00S."
- The counter will not work on tape portions with no recording.

Notes
- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the AUDIO MONITOR setting.
- To play a tape in stereo, you must use the EURO-AV (LINE 1) connection or AUDIO OUT connection.
- If AUDIO MIX in the SET UP MENU is set to ON, the AUDIO MONITOR button doesn't work.

Displaying the remaining tape length and time counter

Press DISPLAY to turn the display on or off.



Using the time counter

At the point on a tape that you want to find later, press COUNTER RESET to reset the counter to "0H00M00S." When you rewind or advance the tape to this point, refer to the counter.

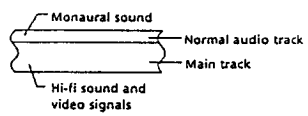
Playing stereo and bilingual programmes

Press AUDIO MONITOR to select the desired sound. Each press of the button changes the display on the VCR and TV screen.

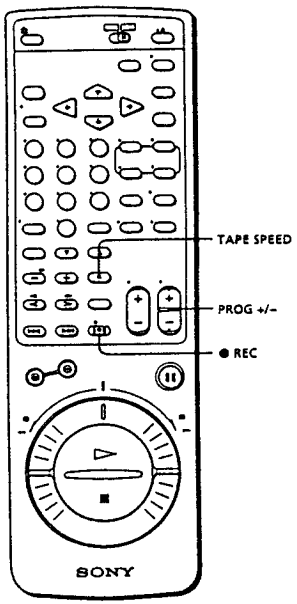
To listen to a		Press AUDIO MONITOR until	
Stereo tape	Bilingual tape	The TV screen shows	The display window indicator shows
Stereo	Main and sub sounds	"STEREO"	"STEREO"
Left channel	Main sound	"LCH"	"MAIN/L"
Right channel	Sub sound	"RCH"	"SUB/R"
Standard sound (monaural)	Standard sound	No indication	No indication

How sound is recorded on a video tape

This VCR records sound onto two different tracks. High-fidelity sound (usually stereo) is recorded onto the main track along with the picture. Monaural sound is recorded onto the normal audio track along the edge of the tape.



Recording TV programmes



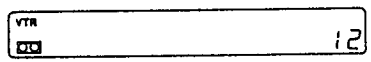
This section shows you how to record TV programmes in the most basic way: manual recording. With manual recording, you start the VCR recording when the programme begins, then stop it when the programme ends. The VCR also provides the following ways of recording:

- Manually start recording, then stop it automatically—"Recording using the quick timer" (page 23)
- Automatically start and stop recording—"Recording TV programmes using the timer" (page 26)
- Automatically start and stop recording by simply entering the "PlusCode"—"Recording TV programmes using VIDEO Plus+" (page 29)

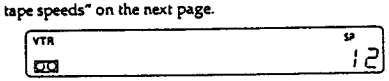
1 **Turn on your TV and tune in to the VCR:**
- If the TV is connected to the VCR using the EURO-AV cable, set the TV to video input.
- If the TV is connected to the VCR using only the aerial cable, set the TV to the programme position for the VCR.

2 **Open the drop down panel and insert a tape with its safety tab in place.**

3 **Select the desired programme position by pressing PROG +/–.**



4 **Select the tape speed, SP (standard play) or LP (long play), by pressing TAPE SPEED.**
See "To select tape speeds" on the next page.



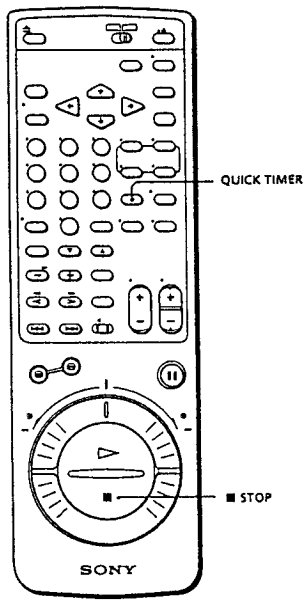
5 **Start recording by pressing ● REC.**
When the tape reaches the end, the VCR automatically rewinds it to the beginning.

To stop recording
Press ■ STOP.

Notes
- If you insert a tape with its safety tab removed, the VCR starts playing. To record on this tape, cover the tab hole.
- If you've inserted a tape with its safety tab removed, the VCR ejects it when you press the ● REC button.

Tip
- To select programme positions, you can also use the number buttons on the remote commander. For two-digit numbers, press the -/-- (ten's digit) button followed by the number buttons.

Tips
- To cut out an unwanted scene while recording, press ❚❚ PAUSE, turn the DUAL MODE SHUTTLE ring on the VCR to rewind the tape to the beginning of the unwanted scene, then press ❚❚ PAUSE to resume recording.
- The display appears on the TV screen indicating information about the tape, but the information will not be recorded on the tape.
- If you don't want to watch TV while recording, you can turn off the TV.



To select tape speeds
When recording, select either SP or LP. LP provides recording time twice as long as SP. However, SP provides better picture quality. You can mix SP and LP on the same tape. When playing back, the VCR automatically detects the tape speed. See the table below for the maximum recording/playback time in each speed.

Tape type	Maximum recording/playback time	
	SP	LP
E-300	5 hrs.	10 hrs.
E-240	4 hrs.	8 hrs.
E-180	3 hrs.	6 hrs.
E-120	2 hrs.	4 hrs.
E-60	1 hr.	2 hrs.

Recording using the quick timer

The quick timer enables you to record for a specified period of time in intervals of 30 minutes. Once you specify the recording time, the VCR automatically stops recording. Before you begin, check that the clock is set correctly.

After you start recording, press QUICK TIMER until the desired duration appears in the display window. The TIMER indicator on the VCR lights up. Each press increases the recording duration in increments of 30 minutes as shown below.

0:00 → 0:30 → 1:00 - - - - → 10:30 → 11:00

The recording duration decreases minute by minute to 0:00, then the VCR turns off automatically.

To stop recording
To stop quick-timer recording while the VCR is recording a programme, press ■ STOP.

To extend the recording duration while recording
Press QUICK TIMER until the desired duration appears in the display window.

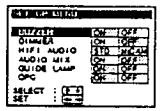
Watching a TV programme while recording another

You can watch a TV programme and record another at the same time.
1 Press TV/VTR on the top right of the remote commander to turn off the VTR indicator in the display window.
2 Select the desired programme position on the TV.

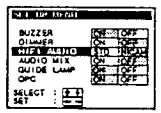
Recording stereo and bilingual programmes in NICAM system

This VCR receives and records stereo and bilingual programmes based on the NICAM system. When NICAM broadcasts are received, the STEREO indicator appears in the display window; when stereo programmes are received, the STEREO indicator appears in the display window; when bilingual programmes are received, the MAIN/L indicator lights up in the display window.

1 Press MENU and select SET UP MENU.



2 Set HIFI AUDIO to NICAM by pressing CURSOR ↑/↓/←/→



3 Press EXECUTE to store the setting.

Using the NICAM setting, NICAM broadcasts are recorded as in the following table.

Track	Sound recorded	
	Stereo	Bilingual
Hi-fi audio Left channel	Left channel	Main
Hi-fi audio Right channel	Right channel	Sub
Normal audio (monaural)	Standard (usually the mixed sound of left and right channels)	Standard (usually the main sound)

Tip
- When you set HIFI AUDIO to NICAM, the stereo or bilingual sound is recorded on the hi-fi audio track and the standard sound is recorded on the normal audio track.

Note
- If you set HIFI AUDIO to STD, the standard sound is recorded on both the hi-fi and normal audio tracks. (You cannot select the listening sound using AUDIO MONITOR.)

To monitor stereo and bilingual programmes while recording
Set HIFI AUDIO to NICAM. Press AUDIO MONITOR to select the desired sound.

Stereo programmes

To listen to	Press AUDIO MONITOR until	
	The TV screen shows	The display window shows
Stereo sound	"STEREO"	"STEREO"
Standard sound	No indication	No indication

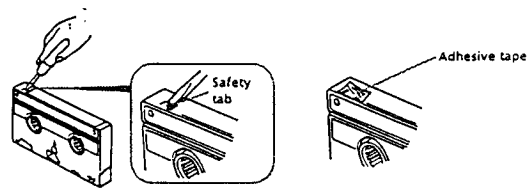
Bilingual programmes

To listen to	Press AUDIO MONITOR until	
	The TV screen shows	The display window shows
Main sound	"MAIN"	"MAIN/L"
Sub sound	"SUB"	"SUB/R"
Main and sub sounds	"MAIN/SUB"	"MAIN/L, SUB/R"
Standard sound	No indication	No indication

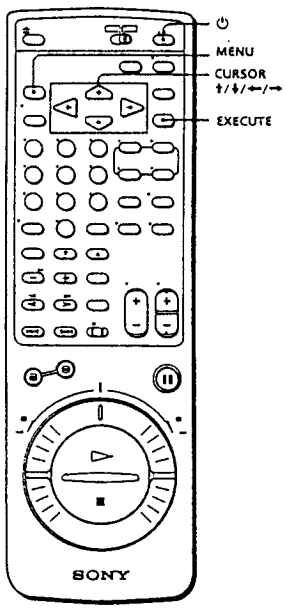
Saving a recording

Video tapes have a safety tab to protect against accidental recording. To prevent accidental erasure of a recording, break off the safety tab with a screwdriver or other tool. A tape with its safety tab removed ejects if you try to record on it.

To record on a tape with its safety tab removed, cover the tab hole with adhesive tape.



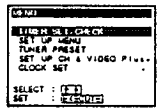
Recording TV programmes using the timer



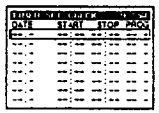
This section shows you how to let the VCR automatically start and stop recording TV programmes. You can preset up to eight programmes within a one month time frame.

Before you start...
- Check that the VCR's clock is set correctly.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Turn on your TV and tune in to the VCR.

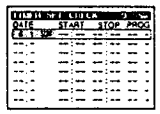
1 **Press MENU.**



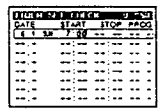
2 **Select TIMER SET/CHECK by pressing CURSOR ↑/↓, then press EXECUTE.**
The TIMER SET/CHECK menu appears. If the clock needs to be set, "PLEASE SET THE CLOCK" appears on the screen and the VCR automatically enters the clock setting mode.



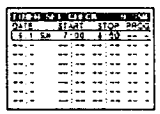
3 **Set the date to start recording.**
1 Press CURSOR → to highlight the date.
Make sure today's date is displayed. If it isn't, adjust the clock.
2 Press CURSOR ↑/↓ to set the date.
The day of the week is set automatically.



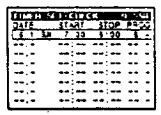
4 **Set the time to start recording.**
1 Press CURSOR → to highlight the hour under "START," then press CURSOR ↑/↓ to set the hour.
2 Press CURSOR → to highlight the minutes under "START," then press CURSOR ↑/↓ to set the minutes.



5 **Press CURSOR →, then set the time to stop recording in the same way.**



6 **Press CURSOR →, then select the programme position by pressing CURSOR ↑/↓.**

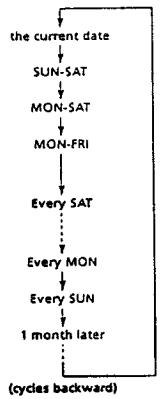


Tips
- To set the programme position, you can also use PROG +/– or number buttons.
- To record a video source from the EURO-AV (LINE 1) or EURO-AV (LINE IN 2) connector, press INPUT SELECT to display "LINE1" or "LINE2" in the "PROG" position.

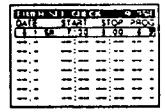
Tip
- To set the recording tape speed, you can also use TAPE SPEED.

Tip
- To change the digits during setting, press CURSOR ← to return to the item to be changed, and select the digits using CURSOR ↑/↓.

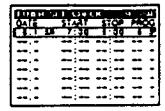
Note
- If the power is interrupted for more than one hour while the VCR is standing by for recording, the timer settings are cleared. Reset the timer.



7 **Press CURSOR →, then select the tape speed, SP or LP, by pressing CURSOR ↑/↓.**
See "To select tape speeds" on page 23.



8 **To confirm your programme, press CURSOR →.**
The cursor (▮) appears in the leftmost column.
To preset another timer setting, move the cursor to the next line using CURSOR ↓, and repeat steps 3 to 7.



9 **After making the desired timer settings, press EXECUTE.**

10 **Press ⏻ (on/standby) to turn off the VCR.**
The TIMER indicator on the VCR lights up and the VCR stands by for recording.
The VCR automatically turns on and starts recording at the preset start time, and turns off at the preset stop time.

To stop recording
To stop while the VCR is recording a programme, press ■ STOP.

Daily/weekly recording

Daily recording records the same programme every day of the week; weekly recording records the same programme on the **same day**, every week.

When you set the date to start recording in step **3** above, press CURSOR ↓ until the desired day appears. Each time you press the button, the indication changes as shown on the left.

Recording TV programmes using the timer (continued)

Notes

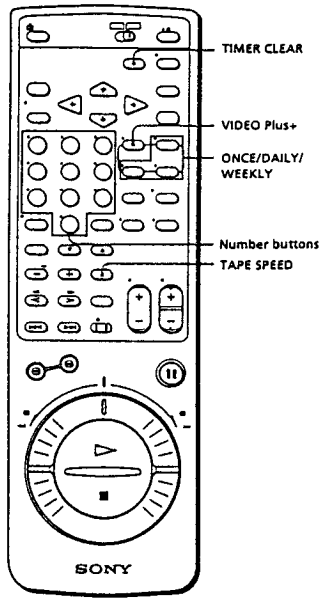
- If recording times overlap due to a PDC timer shift, the programme that was broadcast first has priority. The second programme will begin to record only when the first programme has finished.
- If the PDC signal is too weak or the broadcasting station failed to transmit PDC signals, the VCR will record the programme without using the PDC function even if the PDC indicator is lit in the display window.

Timer recording with PDC signals

The broadcast system transmits PDC (Programme Delivery Control) signals with its TV programmes. These signals ensure that your timer recordings are made regardless of broadcast delays, early starts or broadcast interruptions on that day. When setting the timer, make sure to enter the start time exactly as indicated in the TV programme guide, otherwise the PDC function will not work.

1 If the TIMER indicator on the VCR is lit, press ⏻ to release the VCR from standby and turn it on.
2 While the VCR is turned on, press PDC on the remote commander. The PDC indicator lights up in the display window on the VCR.
3 If you turned off the TIMER indicator in step 1, press ⏻.
The TIMER indicator lights up and the VCR returns to recording standby. Once you switch on the PDC function, it works on all timer settings that are set to programmes with PDC signals.

Recording TV programmes using VIDEO Plus+

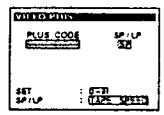


This section shows you another way of timer recording: recording using VIDEO Plus+. This allows you to record TV programmes more easily. Just enter the programme's "PlusCode," and the VCR will automatically record the programme. You can preset up to eight programmes within a one month time frame. To take advantage of this feature, you must first set up your VCR and assign programme positions to the various guide channels. For details, see "Setting up VIDEO Plus+ manually" on page 16.

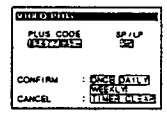
Before you start...

- Check that the VCR's clock is set correctly.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Turn on your TV and tune in to the VCR.

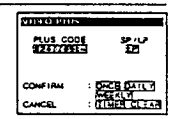
1 **Press VIDEO Plus+.**
The VIDEO PLUS menu appears on the TV screen.
If the clock needs to be set, "PLEASE SET THE CLOCK" appears on the screen and the VCR automatically enters the clock setting mode.



2 **Use the number buttons to enter the desired programme's PlusCode.**
If you make a mistake, press TIMER CLEAR and enter the correct number.



3 **Select the tape speed, SP or LP, by pressing TAPE SPEED.**



(continued)

Recording TV programmes using VIDEO Plus+ (continued)

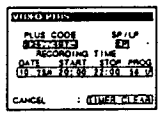
Tip
- To exit from the VIDEO Plus+ mode, press VIDEO Plus+ before pressing ONCE, DAILY or WEEKLY in step 5.

Notes
- You cannot set VIDEO Plus+ in the following cases:
  - When the VCR is turned off.
  - While recording using the timer or quick timer.
- The timer will not accept settings in the following cases:
  - When you select DAILY for a Saturday or Sunday programme.
  - When you select DAILY or WEEKLY for a programme more than seven days ahead.
  - When you enter the PlusCode of a programme that has already ended.
- If the VCR does not accept the setting, check the PlusCode again and change it repeating from step 2.

4 **Press ONCE, DAILY or WEEKLY according to the following table.**

To record the programme	Press
Only once	ONCE
Monday to Friday at the same scheduled time	DAILY
Every week at the same scheduled time	WEEKLY

The recording information appears on the TV screen: date, programme start and stop times, programme position number and tape speed.
Check that the information is correct. If it is not, press TIMER CLEAR to cancel the setting.
To preset another timer setting, repeat steps 2 to 5.

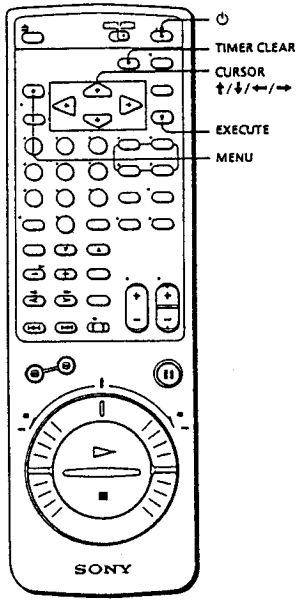


5 **Press ⏻ to turn off the VCR.**
The TIMER indicator on the VCR lights up and the VCR stands by for recording. The VCR automatically turns on, records the programme and turns off.

To stop recording
To stop while the VCR is recording a programme, press ■ STOP.

To record satellite broadcasts
If you connect the satellite tuner and the VCR, you can record satellite programmes.
1 Turn on the satellite tuner.
2 On the satellite tuner, select the satellite programme for which you wish to make a timer setting.
3 Repeat the steps described above.
4 Keep the satellite tuner turned on until the VCR finishes recording the satellite programme for which you have made a timer setting.

Checking/changing/cancelling timer settings

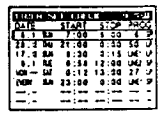


This section shows you how to check, change and cancel the timer settings after you've stored them in the VCR.

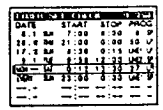
Before you start...
- Turn on your TV and tune in to the VCR.

1 **Press ⏻ (on/standby) to turn on the VCR.**

2 **Press MENU and select TIMER SET/CHECK. Then press EXECUTE.**
The TIMER SET/CHECK menu appears on the TV screen.



3 **Check the timer settings in the list.**
- If you do not want to change or cancel the settings, press ⏻ to return to recording standby.
- If you want to change or cancel the settings, press CURSOR ↑/↓ to move the cursor (▮) to the setting you want to change or cancel.



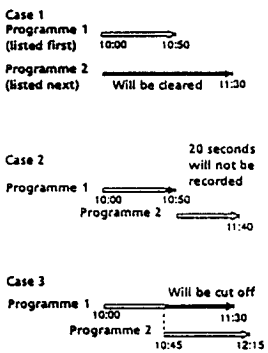
4 **Change or cancel the timer setting:**
- To change the setting, press CURSOR ←/→ to highlight the item you want to change, and reset it using CURSOR ↑/↓. Then, press CURSOR → repeatedly until the cursor appears in the leftmost column.
- To cancel the setting, press TIMER CLEAR.

5 **Press EXECUTE.**
The VCR returns to the original screen. If there are any other timer settings left in the the TIMER SET/CHECK menu, press ⏻ to return to recording standby.

To check the timer settings during timer recording
Press MENU and select TIMER SET/CHECK. After checking, press EXECUTE to turn off the display.

Additional instructions about timer recording

For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk



Note

The priority of the overlapping programmes may be different from the above cases if the PDC function is activated. See "Timer recording with PDC signals" on page 28.

This section gives additional information about timer recording which you need after you have stored timer settings in the VCR.

To use the VCR while recording

You can do the following tasks during timer recording.

To	Press
Reset the counter to "0H00M00S"	COUNTER RESET
Display tape information on the TV screen	DISPLAY
Check the timer settings	MENU, and select TIMER SET/CHECK
Watch another TV programme	TV/VTR (See "Watching a TV programme while recording another" on page 23.)

Using the VCR before timer recording begins

Press ⏻. The TIMER indicator on the VCR goes off and the VCR is ready for use.
After using the VCR, press ⏻ again to turn on the TIMER indicator on the VCR. Remember to reset the VCR to stand by for recording before the time you've set the VCR to start recording, or the timer setting will be cancelled.

When the timer settings overlap

The VCR will not record overlapping programmes. If any of your timer settings overlap, change the settings.

Case 1: If you preset two programmes to start recording at the same time...

The programme listed first in the TIMER SET/CHECK menu has priority over the other programmes. The timer settings of lower priority programmes will be erased from the list when the first programme begins recording.

Case 2: If you preset programme 2 to start recording at the same time you preset programme 1 to finish recording...

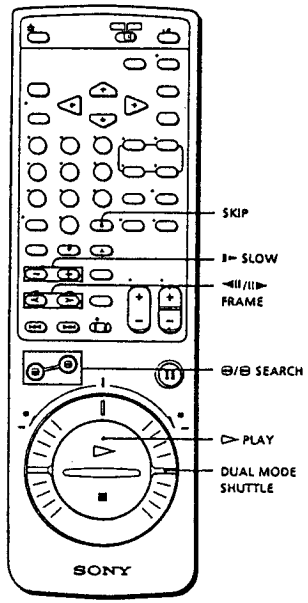
The last 20 seconds of programme 1 will not be recorded because the VCR will enter recording pause for programme 2 before programme 1 is finished.

Case 3: If you preset programme 2 to start recording before programme 1 is finished recording...

Programme 2 will start recording before programme 1 has finished.

Additional Operations

Playing/searching at various speeds



Tip

- Adjust the picture using the ▼/▲ TRACKING NORMAL/SLOW STILL ADJUST buttons if:
  - Streaks appear while playing in slow motion.
  - Bands appear on the top or bottom while pausing.
  - The picture shakes while pausing.

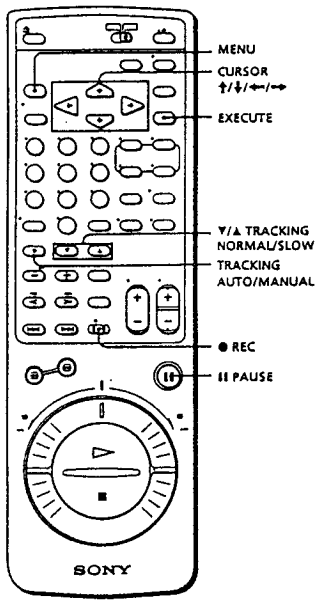
Note

- If you use these functions in the LP mode, noise may appear or there may be no colour.

You can play back a tape at various speeds: high-speed, slow motion, frame by frame and so on. These options are also useful for searching for a specific point during playback. The sound is muted during these operations.

Playback options	Operation	To resume normal playback
Playing at various speeds:	During playback, turn the DUAL MODE SHUTTLE ring right or left to:	Release the ring.
One-fifth the normal speed	1/5	
The normal speed	1	
Twice the normal speed	x 2	
High speed	⊖ or ⊖	
Fast-forwarding/ Rewinding	During stop, turn the DUAL MODE SHUTTLE ring to ▶▶ FF or to ◀◀ REW and release.	Press ▷ PLAY.
Viewing the picture during fast-forward or rewind	During fast-forward, turn the DUAL MODE SHUTTLE ring to ▶▶ FF. During rewind, turn the ring to ◀◀ REW.	To return to the previous mode, release the ring.
Locking in a high-speed picture	During playback or pause, press ⊖ SEARCH or ⊖ SEARCH. To change direction, press ⊣II FRAME (backward) or II⊢FRAME (forward).	Press ▷ PLAY.
Locking in a slow-motion picture	During playback or pause, press I⊢ SLOW –/+. You can increase the playback speed with the + button and decrease the speed with the – button. To change direction, press ⊣II FRAME (backward) or II⊢ FRAME (forward).	Press ▷ PLAY.
Playing frame by frame	During pause, press II⊢ FRAME to advance the picture one frame or ⊣II FRAME to reverse the picture one frame. Keep pressing the button to advance or reverse one frame every one second.	Press ▷ PLAY.
Playing in reverse	During playback, press ⊣II FRAME.	Press ▷ PLAY.
Skipping a scene	During playback, press SKIP. Pressing once skips about 30 seconds.	The VCR automatically resumes normal playback.
Rewind and restart play	During stop, press ▷ PLAY on the VCR while holding the DUAL MODE SHUTTLE ring on the VCR at the ◀◀ REW position.	—

Adjusting the picture

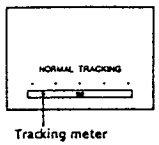


The VCR automatically adjusts the picture for the best possible playback or recording. If, however, you find the automatic adjustment unsatisfactory, you can adjust the picture manually.

Adjusting the tracking

Though the VCR automatically adjusts the tracking when playing a tape (the AUTO TRACKING indicator flashes in the display window, then lights steadily), distortion may occur if the tape was recorded in poor condition. If so, manually adjust the tracking condition.

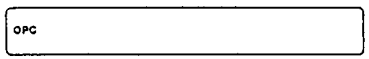
Press the ▼/▲ TRACKING NORMAL/SLOW buttons to display the tracking meter. The distortion should disappear as you press one of the two buttons. If you cannot get a clear picture with manual adjustment, press TRACKING AUTO/MANUAL to return to automatic adjustment.



Tracking meter

About Optimum Picture Control (OPC)

Optimum Picture Control (OPC) automatically improves recording and playback quality by adjusting the VCR to the condition of the video heads and tape. To maintain better picture quality, we recommend that you leave OPC ON on the SET UP MENU screen (with the OPC indicator in the display window lit).



To use OPC during playback

The OPC function automatically works on all types of tapes, including rental tapes. You can play a tape using the OPC function even if the tape was not recorded with it.

To use OPC while recording

Whenever you insert a tape and first start recording, the VCR adjusts to the tape using the OPC function (the OPC indicator flashes rapidly). This adjustment is retained until the tape is ejected. There is a short delay before the VCR actually starts recording while the VCR analyzes the tape.

If you want to start recording precisely the first time you record, set the VCR to recording pause mode (the OPC indicator flashes slowly) and press ● REC to let the VCR analyze the tape. When the OPC indicator stops flashing, press II PAUSE to start recording. Recording begins immediately.

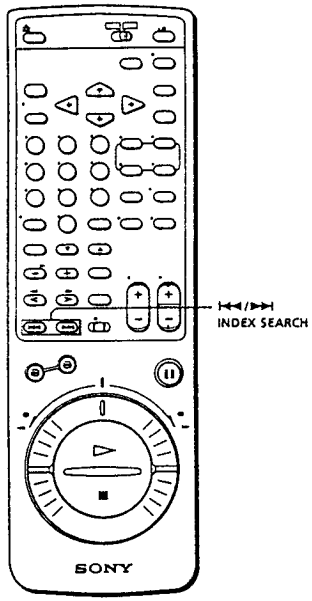
To deactivate the OPC

Press MENU and select SET UP MENU, then set OPC to OFF. The OPC indicator in the display window goes off.

Notes

- Tapes recorded using the OPC function are played back normally on VCRs that do not have the OPC function.
- Press II PAUSE to start recording after the OPC indicator stops flashing. If you start recording before the OPC indicator stops flashing, the OPC function is cancelled.

Searching using the index function



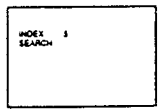
The VCR automatically marks an index signal at the point where recording starts (with the exception of when you start recording from recording pause). Use this as a reference to find the beginning of the recording. Since the index number indicates the relative position from the current position, specify how many index signals ahead or behind the specific index signal is from the current position.

1 **Insert an indexed tape into the VCR.**

2 **Press the I◄◄/►►I INDEX SEARCH buttons repeatedly until the index number you want appears on the TV screen:**

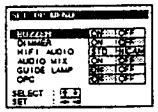
- To locate succeeding programmes, press ►►I INDEX SEARCH.
- To locate preceding programmes, press I◄◄ INDEX SEARCH.

The VCR starts searching and the index number on the TV screen counts down to zero. Playback starts automatically from that point.



Looking at menu options

The SET UP MENU provides you with various options to set up and customise your VCR. See the table below for the available menu choices. Initial settings are indicated in bold letters.



Menu choices

Menu option	Set this option to
BUZZER	• **ON** for output of beep sound when an illogical operation is made. • **OFF** to to deactivate it.
DIMMER	• **ON** to dim the VCR display. • **OFF** to brighten it.
HIFI AUDIO	• **NICAM** to record NICAM broadcasts on a hi-fi audio track. • **STD** to record standard sound on a hi-fi audio track. For details, see page 24.
AUDIO MIX	• **ON** to listen to the hi-fi and normal audio tracks at the same time. The AUDIO MONITOR button becomes inoperable. • **OFF** to select the sound using the AUDIO MONITOR button. For details, see page 21.
GUIDE LAMP	• **ON** to illuminate the DMS ring, REC button and TIMER indicator on the VCR. • **OFF** to turn them off.
OPC	• **ON** to activate the OPC (Optimum Picture Control). • **OFF** to deactivate it. For details, see page 34.

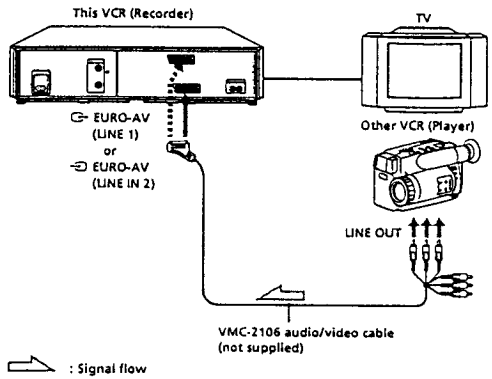
Tip
• See "How sound is recorded on a video tape" on page 21.

1-17

Editing with another VCR

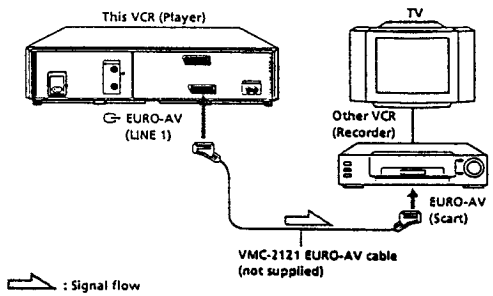
This section shows you how to edit to or from another VCR or camcorder. You can make a copy of a tape using this VCR for recording or playback.

How to hook up to record on this VCR

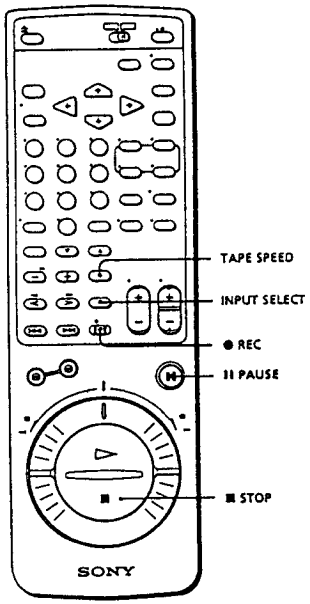


Tips
• Make sure you connect the plugs to jacks of the same colour.
• If the other VCR is a monaural type, leave the red plugs unconnected.

How to hook up to record on another VCR



Tip
• If the other VCR doesn't have a EURO-AV (Scart) connector, use the VMC-2106 EURO-AV cable instead and connect the cable to the line in jacks of the other VCR.



Operation (when recording on this VCR)

Before you start...
- Press INPUT SELECT to display "L1" (or "L2") in the display window.
- Press TAPE SPEED to select the recording tape speed (SP/LP).
- On this VCR, set the EDIT switch on the VCR to ON.
  If the other VCR has a similar switch, set it to ON as well.

1 **Insert a source tape with its safety tab removed into the other (playback) VCR. Search for the point to start playback and set it to playback pause.**

2 **Insert a tape into this (recording) VCR. Search for the point to start recording and press II PAUSE.**

3 **Press the ● REC button on this VCR and set it to recording pause.**

4 **To start editing, press the II PAUSE buttons on both VCRs to release the VCRs from pause.**
For best results, press the pause button on the other VCR before pressing II PAUSE on this VCR.

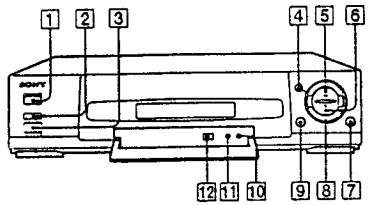
To stop editing
Press the ■ STOP buttons on both VCRs.

Tips
- To make your editing more precise, use the pause buttons on both VCRs.
- To cut out unwanted scenes while editing, press II PAUSE on this VCR when an unwanted scene begins. When it ends, press II PAUSE again to resume recording (Assemble Editing).

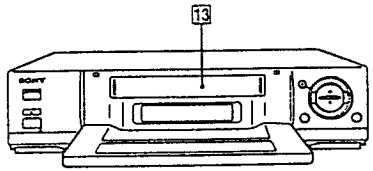
Index to parts and controls

Refer to the pages indicated in ( ) for details.

Front panel, with cover closed



Front panel, with cover opened



1 ON/STANDBY switch/indicator (8)

2 ⏏ EJECT button (20)

3 Remote sensor (6)

4 II PAUSE button (20)

5 ▷ PLAY button (20)

6 ■ STOP button (20)

7 ● REC (recording) button/indicator (22)

8 DUAL MODE SHUTTLE ring (20, 33)

9 TIMER indicator (23, 27)

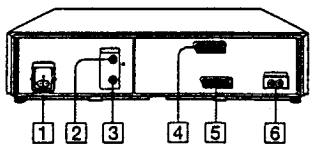
10 RF CHANNEL button (8)

11 EASY SET UP button (10)

12 EDIT switch (38)

13 Tape compartment

Rear panel



1 AC IN connector (7)

2 AERIAL OUT connector (7)

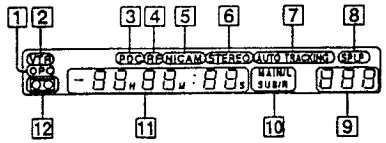
3 AERIAL IN connector (7)

4 EURO-AV (LINE IN 2) connector (37)

5 EURO-AV (LINE 1) connector (7, 37)

6 AUDIO OUT jacks (7)

Display window



1 OPC indicator (34)

2 VTR indicator (23)

3 PDC indicator (28)

4 RF indicator (8)

5 NICAM indicator (24)

6 STEREO indicator (21)

7 AUTO TRACKING indicator (34)

8 Tape speed indicators (22)

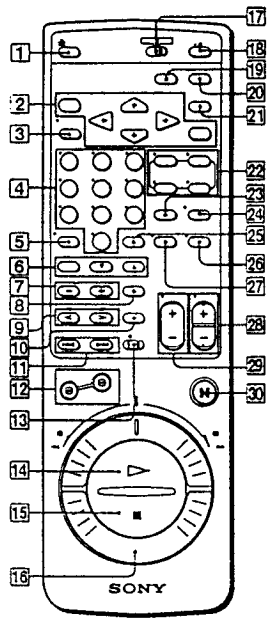
9 Line/Programme position indicator (38)

10 Bilingual sound indicators (21)

11 Linear time counter/Clock (21)

12 Tape indicator (22)

Remote commander



1 ⏏ EJECT button (20)

2 Menu buttons (10)
MENU button
CURSOR ↑/↓/←/→ buttons
EXECUTE button

3 AUDIO MONITOR button (21)

4 Number buttons (22, 29)

5 -/– (ten's digit) button (22)

6 TRACKING buttons (34)
▼/▲ NORMAL/SLOW STILL ADJUST buttons
AUTO/MANUAL button

7 ▮► SLOW –/+ buttons (33)

8 TAPE SPEED button (22)

9 ◄II/II► FRAME ≺/≻ buttons (33)

10 INPUT SELECT button (38)

11 ⏮/⏭ INDEX SEARCH buttons (35)

12 ⊖/⊖ SEARCH buttons (33)

13 ● REC button (22)

14 ▷ PLAY button (20)

15 ■ STOP button (20)

16 DUAL MODE SHUTTLE ring (20, 33)

17 TV/VTR remote control switch (6)

18 ⏻ (on/standby) button (10)

19 TIMER CLEAR button (31)

20 TV/VTR button (23)

21 PDC button (28)

22 VIDEO Plus+ buttons (29)*(for VCR)*
FASTEXT buttons *(for TV)*
VIDEO Plus+ button
ONCE button
DAILY button
WEEKLY button

23 QUICK TIMER button (23)

24 DISPLAY button (21)

25 SKIP button (33)

26 COUNTER RESET button *(for VCR)* (21)
▢ (TV mode select) button *(for TV)*

27 ▤ (Teletext) button *(for TV only)*

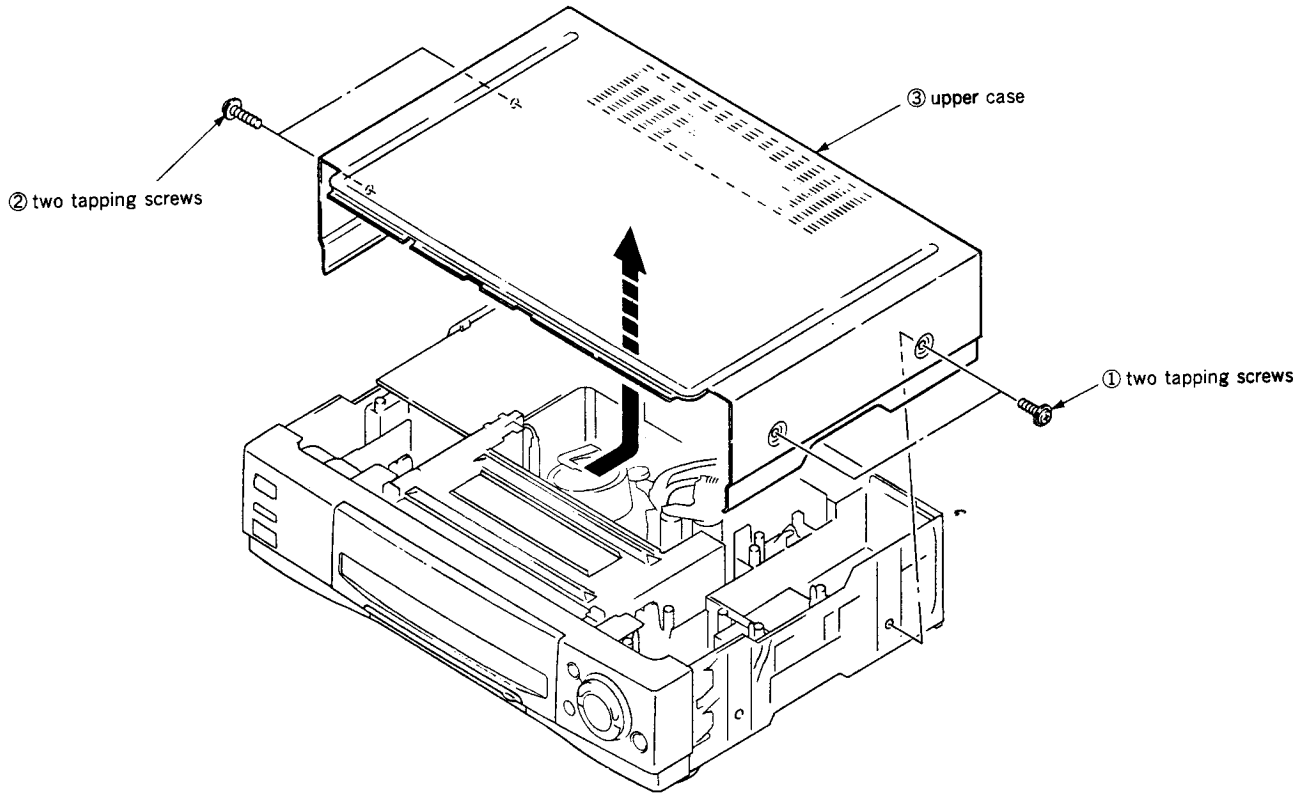
28 PROG (programme) +/– button
▤▲/▤▼ (Teletext page access) button *(for TV only)*

29 VOL (volume) +/– button *(for TV only)*

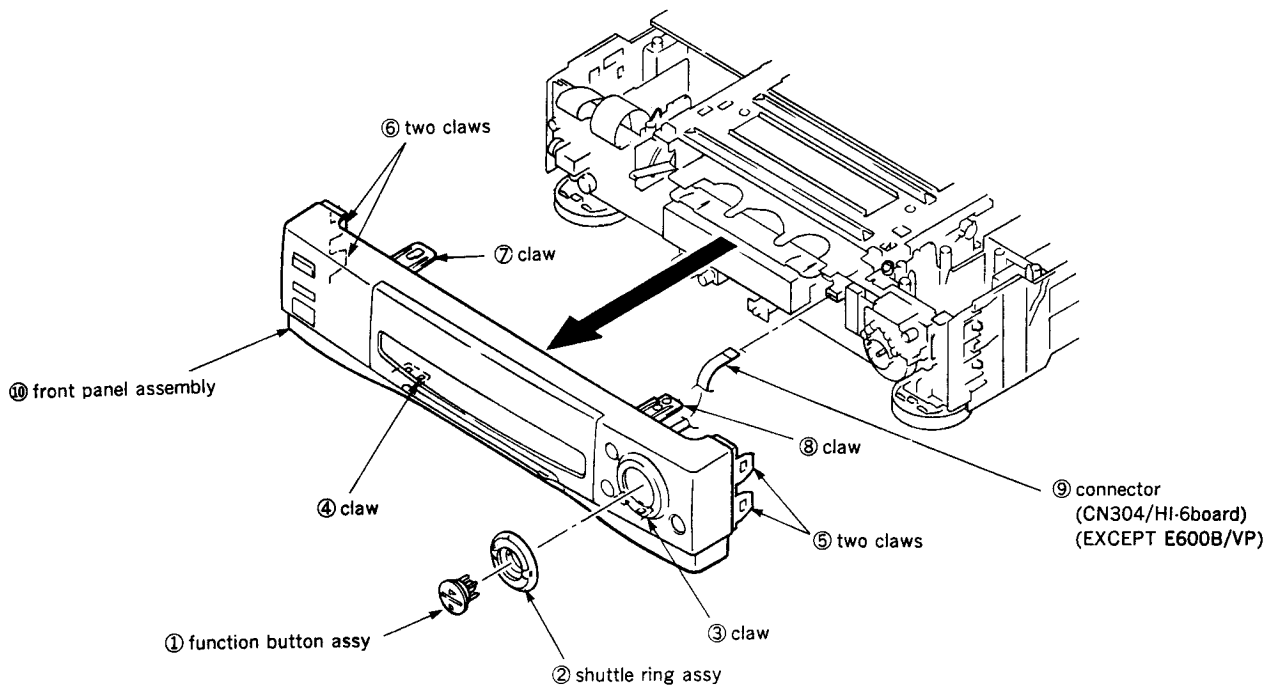
30 II PAUSE button (20)

SECTION 2
DISASSEMBLY

2-1. REMOVAL OF UPPER CASE

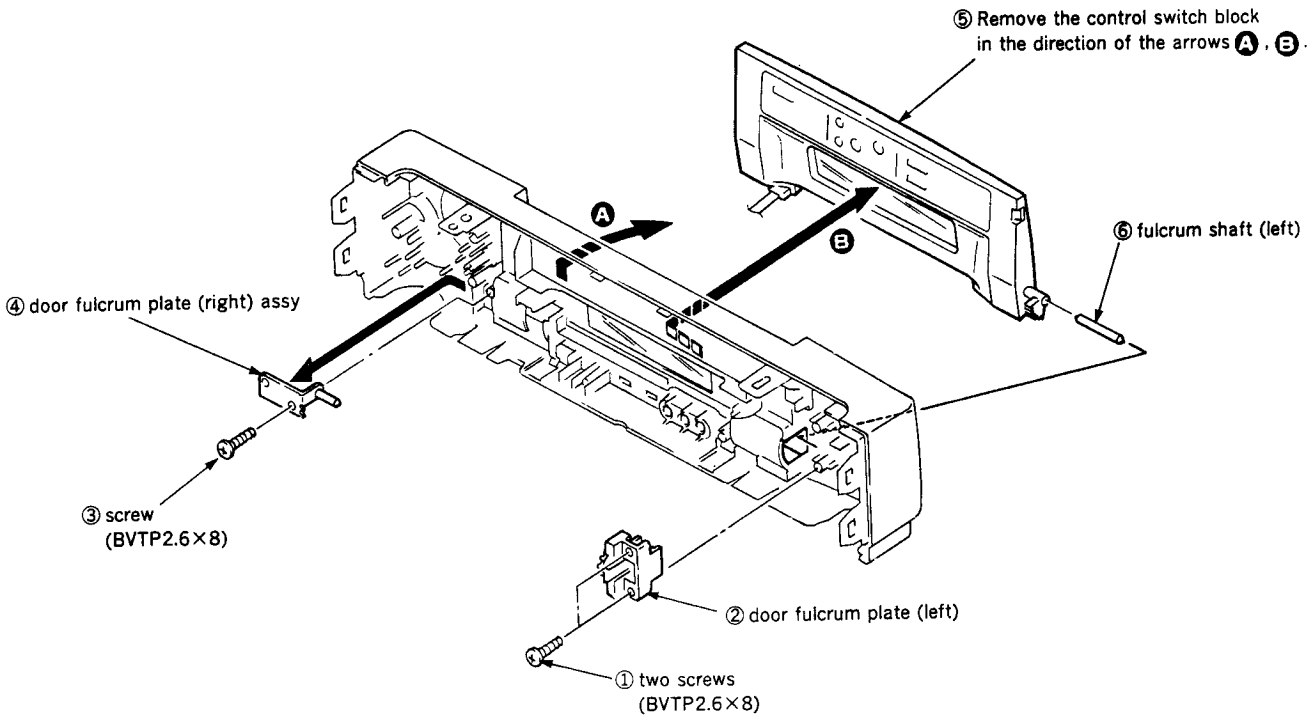


2-2. REMOVAL OF FRONT PANEL ASSEMBLY

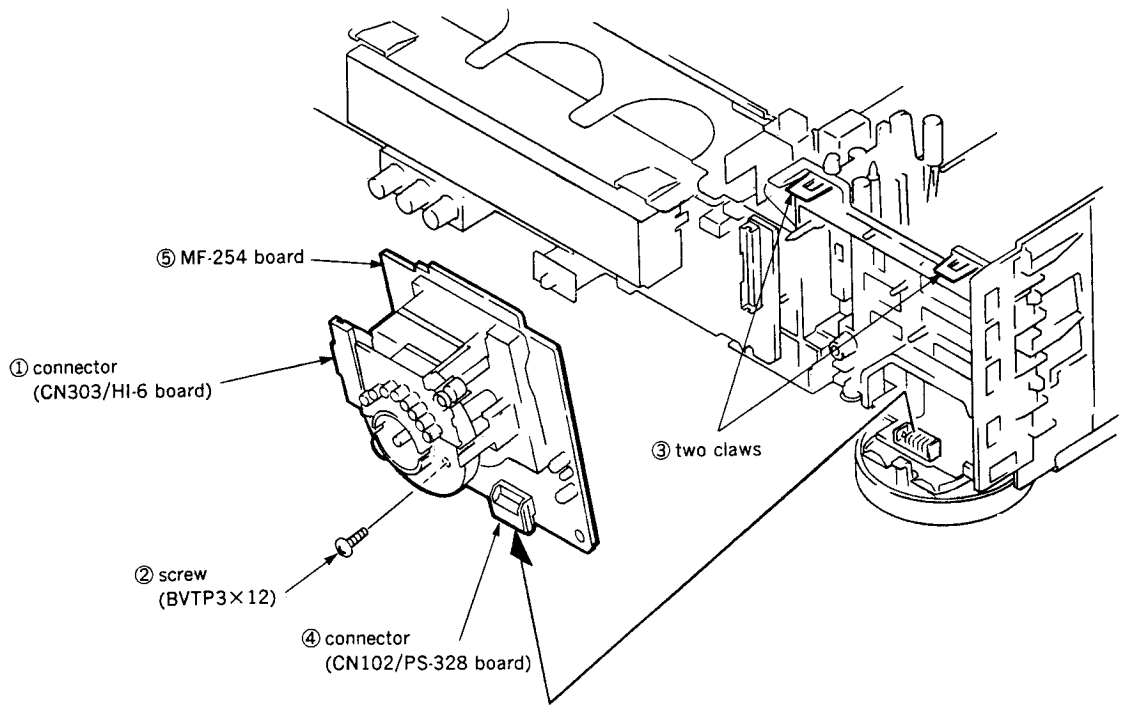


2-3. REMOVAL OF CONTROL SWITCH BLOCK

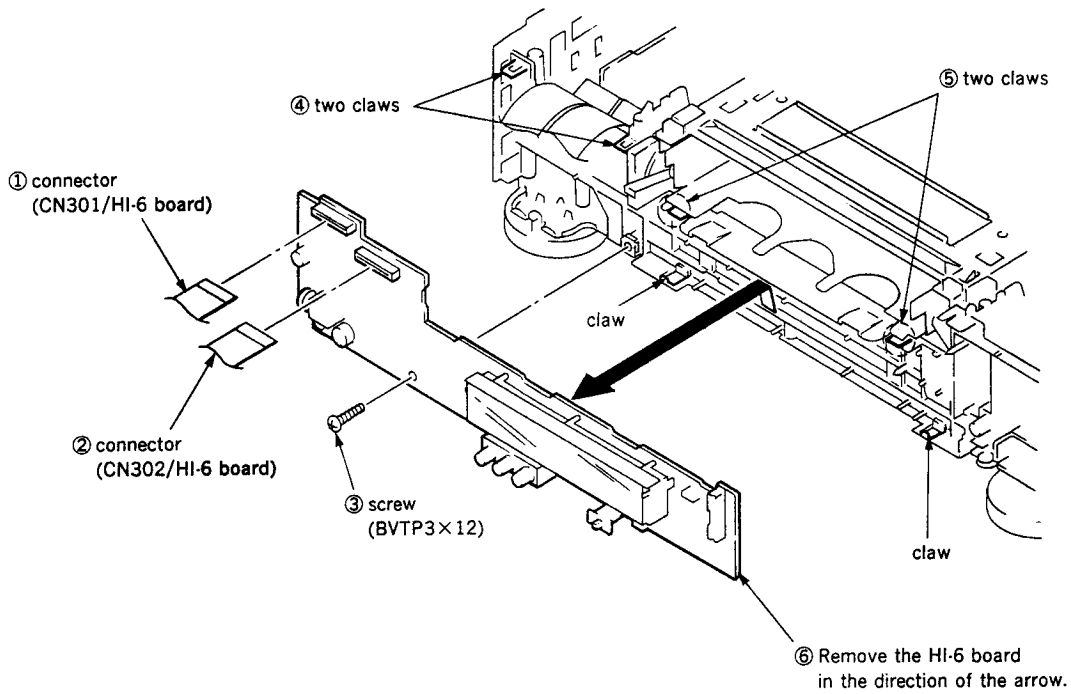
(EXCEPT E600)


⑤ Remove the control switch block in the direction of the arrows Ⓐ, Ⓑ.
⑥ fulcrum shaft (left)
④ door fulcrum plate (right) assy
③ screw (BVTP2.6×8)
② door fulcrum plate (left)
① two screws (BVTP2.6×8)

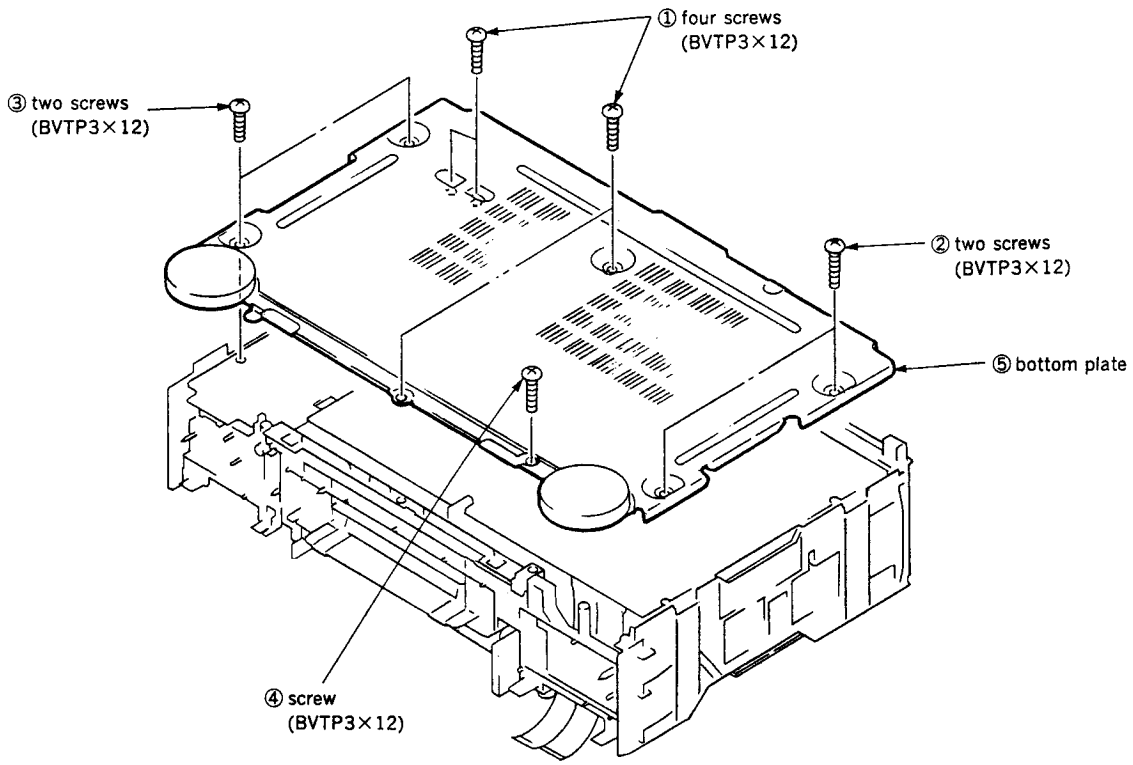
2-4. REMOVAL OF MF-254 BOARD



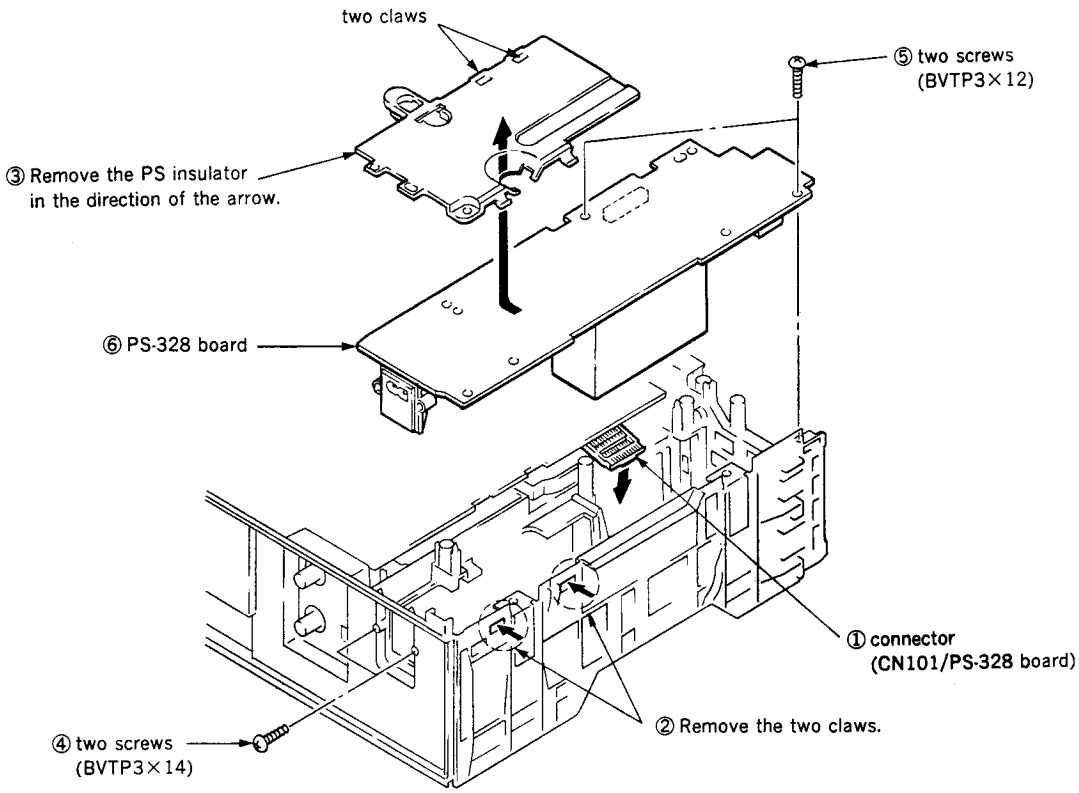
2-5. REMOVAL OF HI-6 BOARD



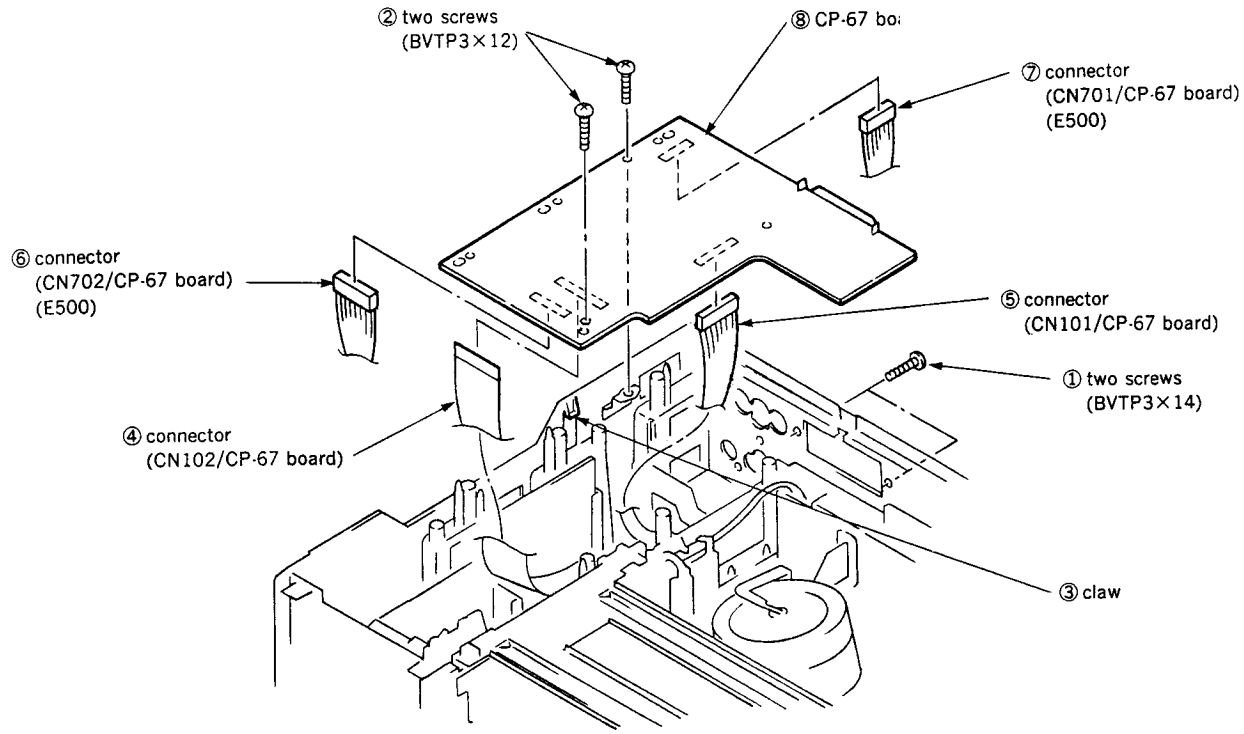
2-6. REMOVAL OF BOTTOM PLATE



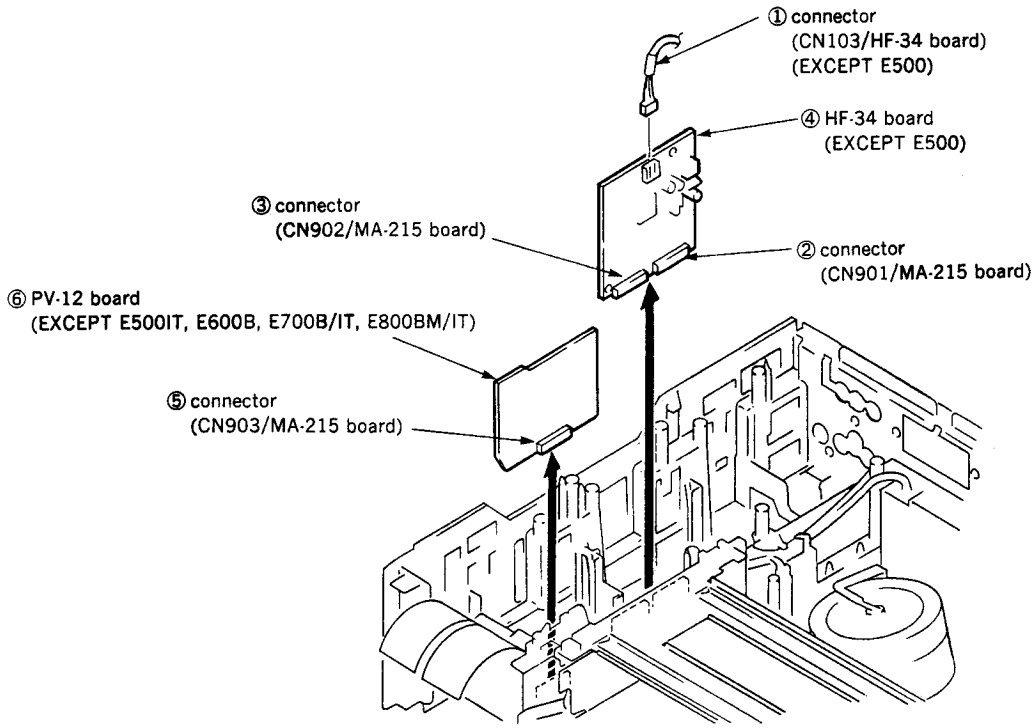
2-7. REMOVAL OF PS-328 BOARD



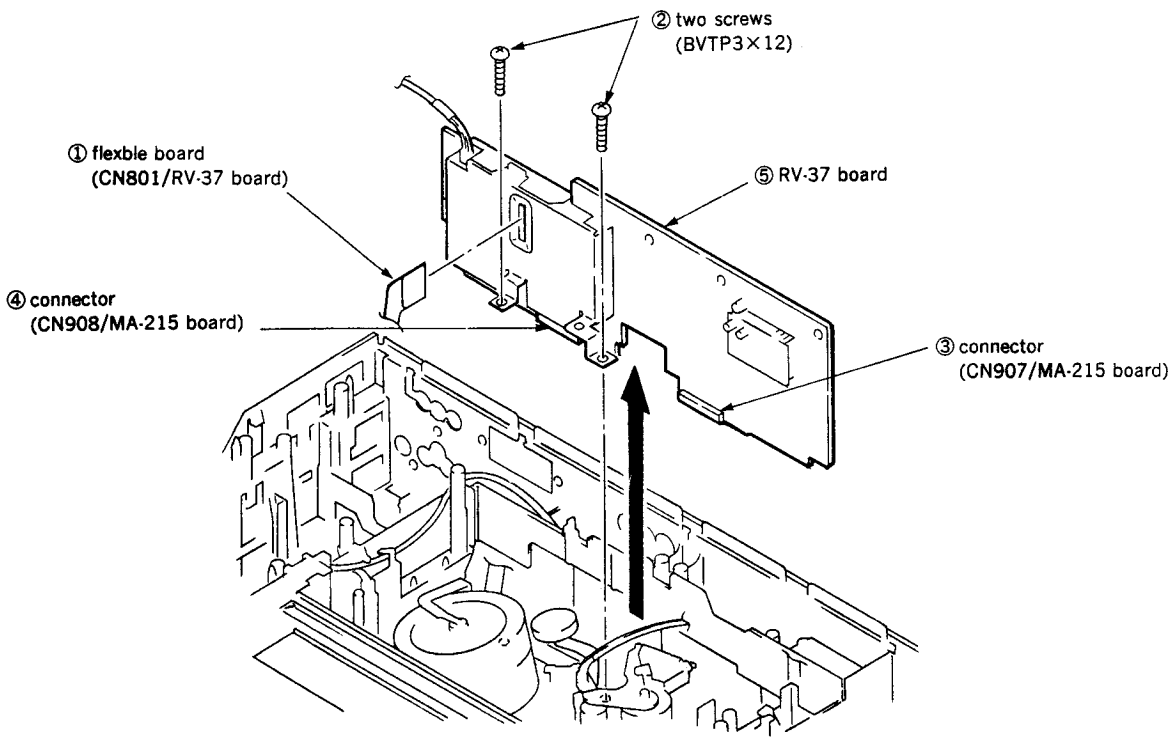
2-8. REMOVAL OF CP-67 BOARD (E500, E600B, E700B/EX/UX, E800BM/NP/VC)



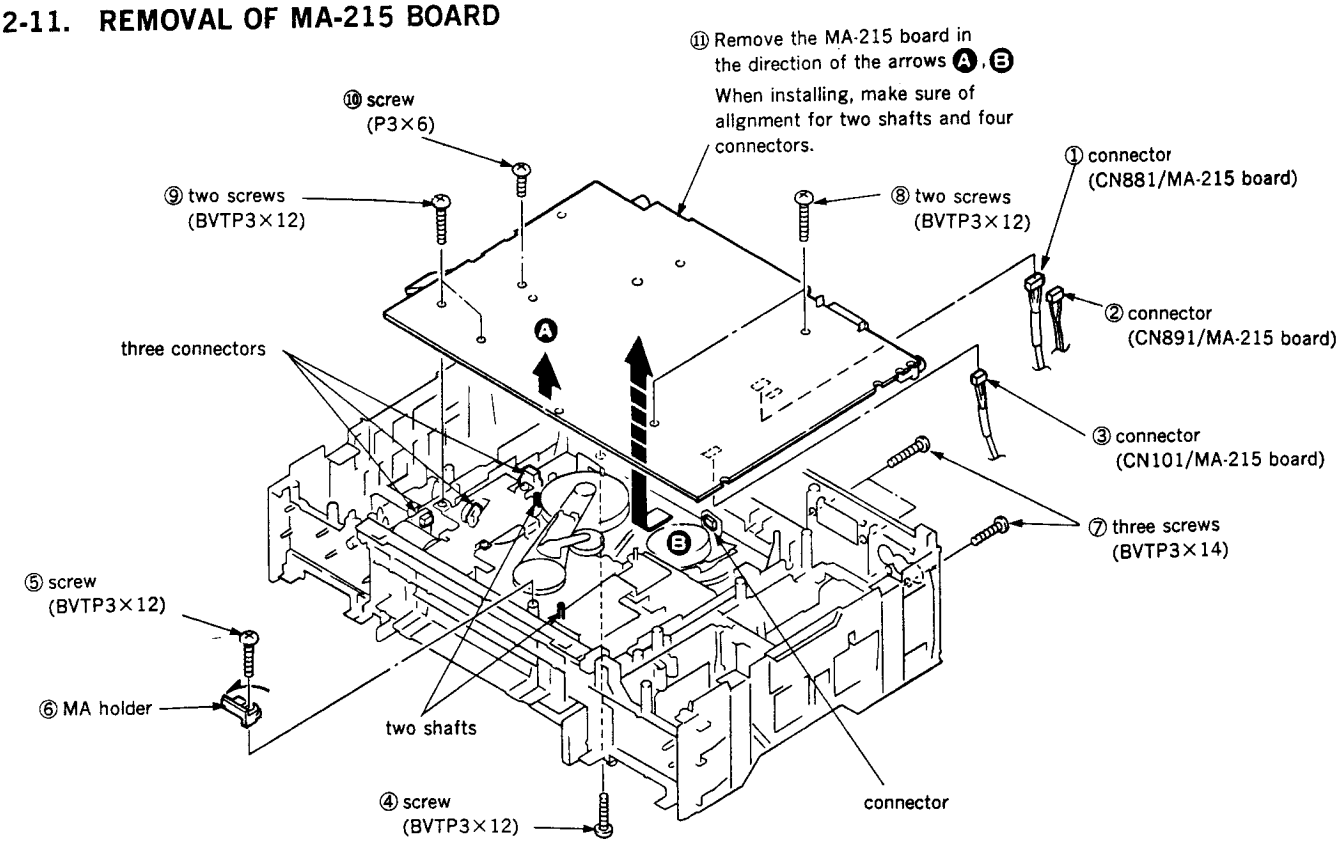
2-9. REMOVAL OF HF-34 BOARD AND PV-12 BOARD



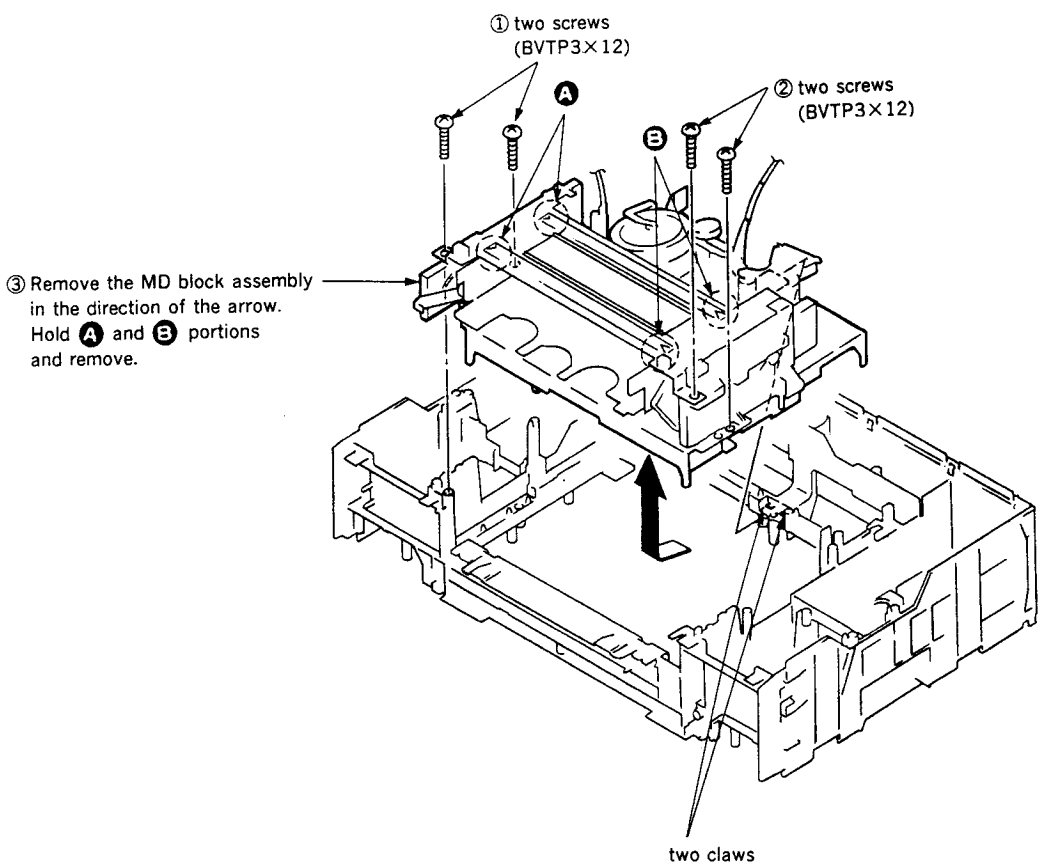
2-10. REMOVAL OF RV-37 BOARD



2-11. REMOVAL OF MA-215 BOARD


⑪ Remove the MA-215 board in the direction of the arrows Ⓐ, Ⓑ
When installing, make sure of alignment for two shafts and four connectors.
⑩ screw (P3×6)
⑨ two screws (BVTP3×12)
⑧ two screws (BVTP3×12)
① connector (CN881/MA-215 board)
② connector (CN891/MA-215 board)
③ connector (CN101/MA-215 board)
⑦ three screws (BVTP3×14)
three connectors
⑤ screw (BVTP3×12)
⑥ MA holder
two shafts
④ screw (BVTP3×12)
connector

2-12. REMOVAL OF MD BLOCK ASSEMBLY

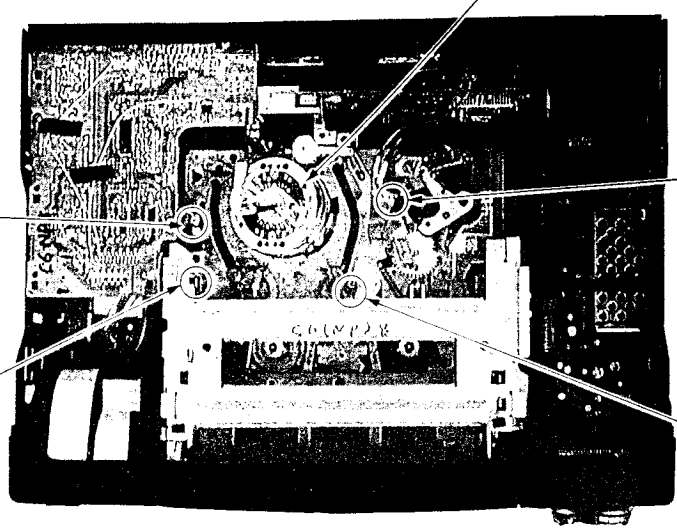

① two screws (BVTP3×12)
② two screws (BVTP3×12)
③ Remove the MD block assembly in the direction of the arrow. Hold Ⓐ and Ⓑ portions and remove.
two claws

2-13. INTERNAL VIEWS

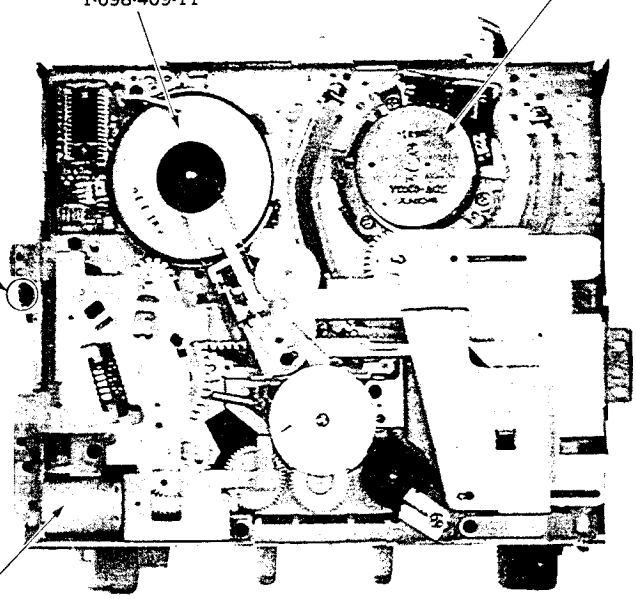
—Upper side—

M901

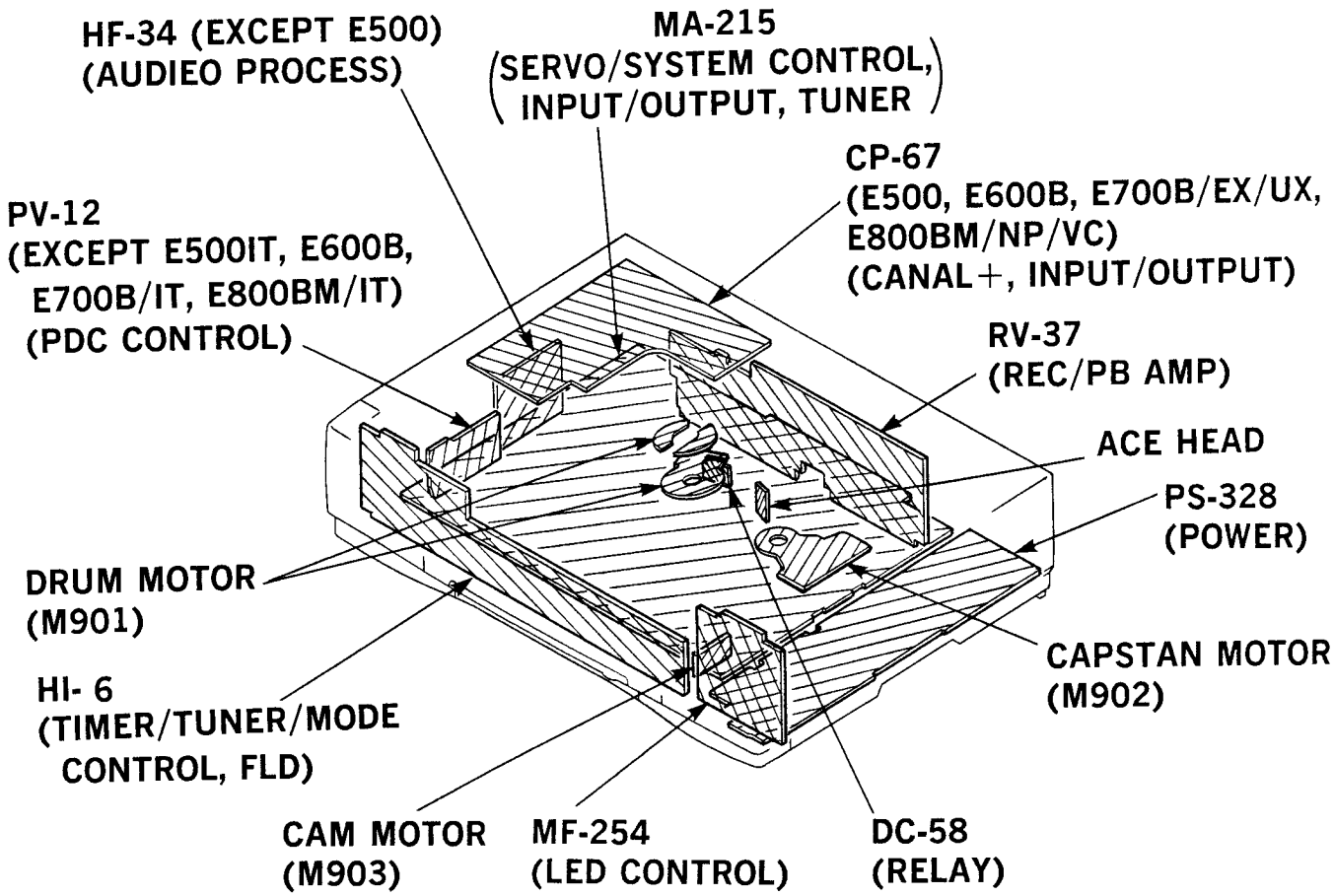
Drum assy	8-848-618-12 (DZH-54A-R) (E500AP/CP/IT/UX/VP)
	8-848-619-12 (DZH-66A-R) (EXCEPT E500AP/CP/IT/UX/VP)
Rotary upper drum assy	8-848-621-02 (DZR-54-R) (E500AP/CP/IT/UX/VP)
	8-848-622-02 (DZR-66-R) (EXCEPT E500AP/CP/IT/UX/VP)



—Lower side—



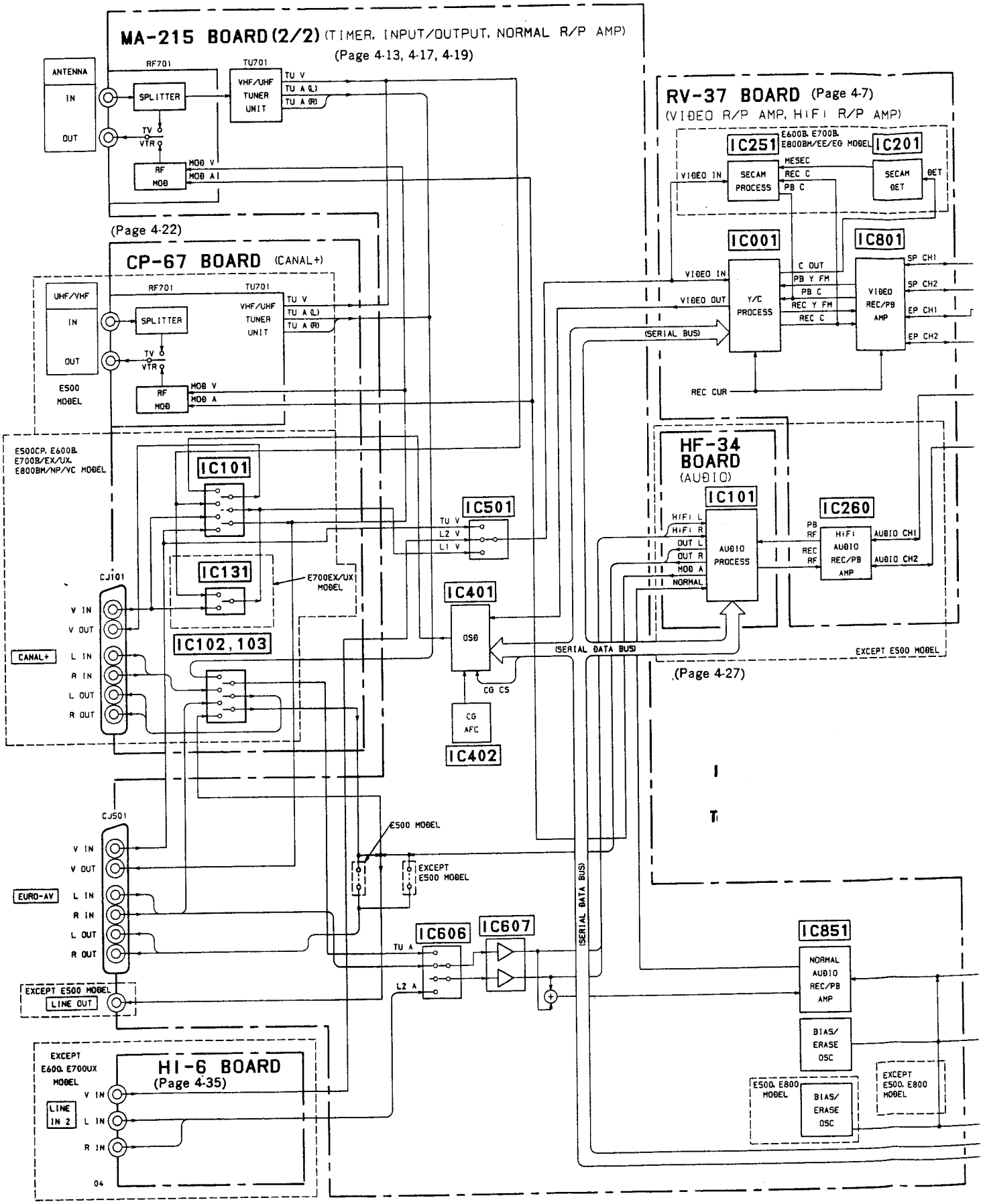
2-14. CIRCUIT BOARDS LOCATION

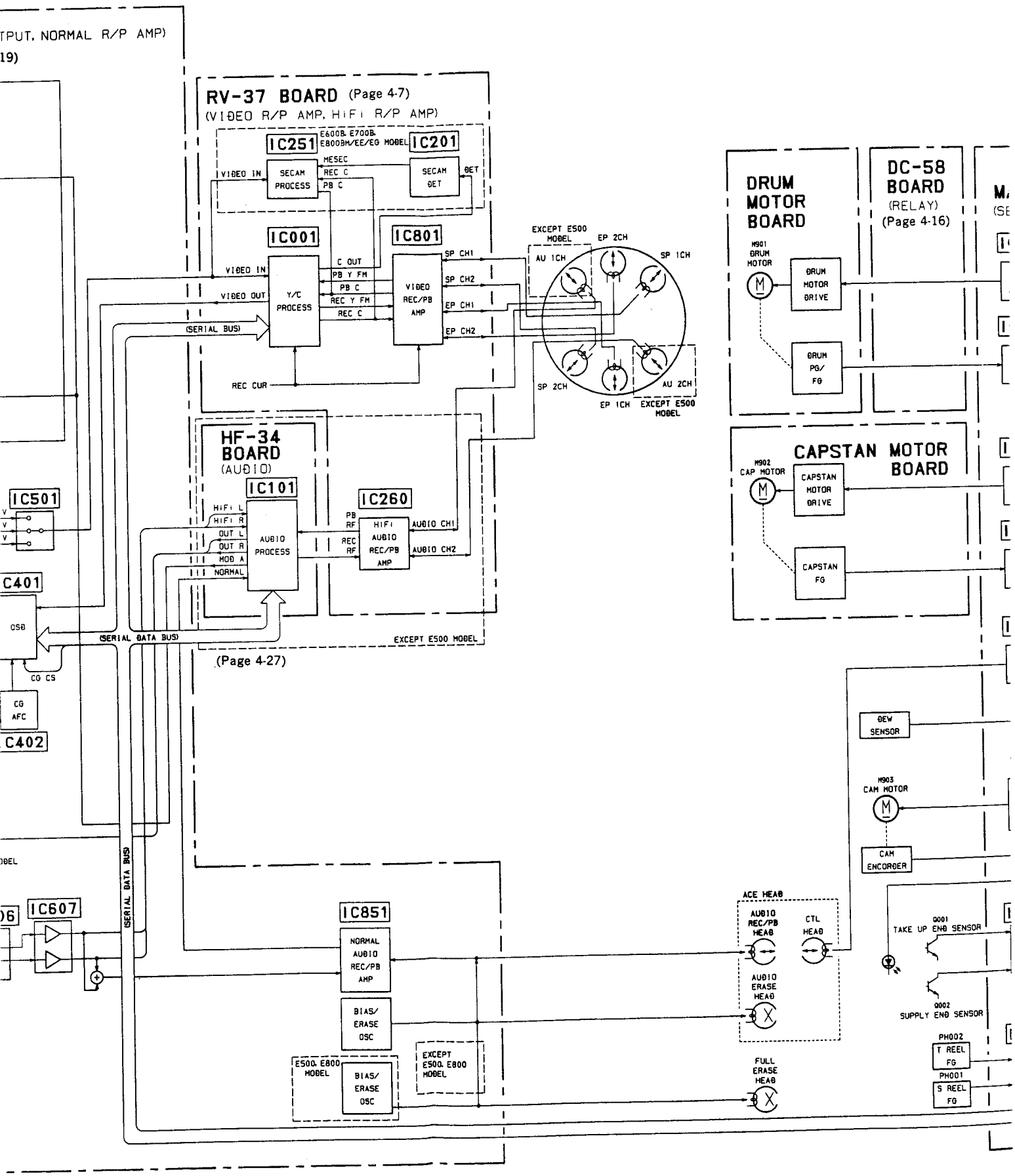


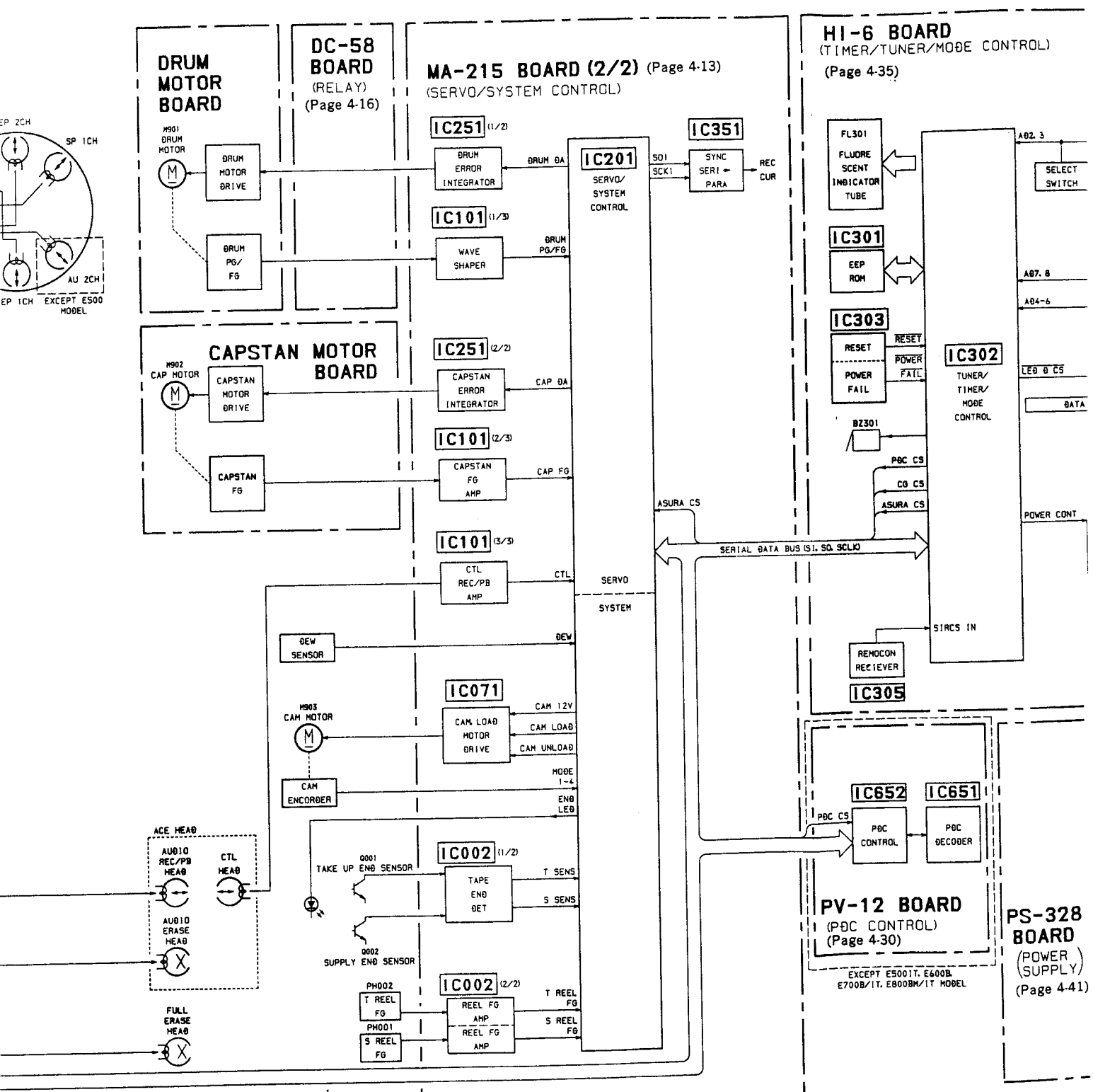
SECTION 3
BLOCK DIAGRAMS

3-1. OVERALL BLOCK DIAGRAM

- The boards which signals only pass through may be omitted.

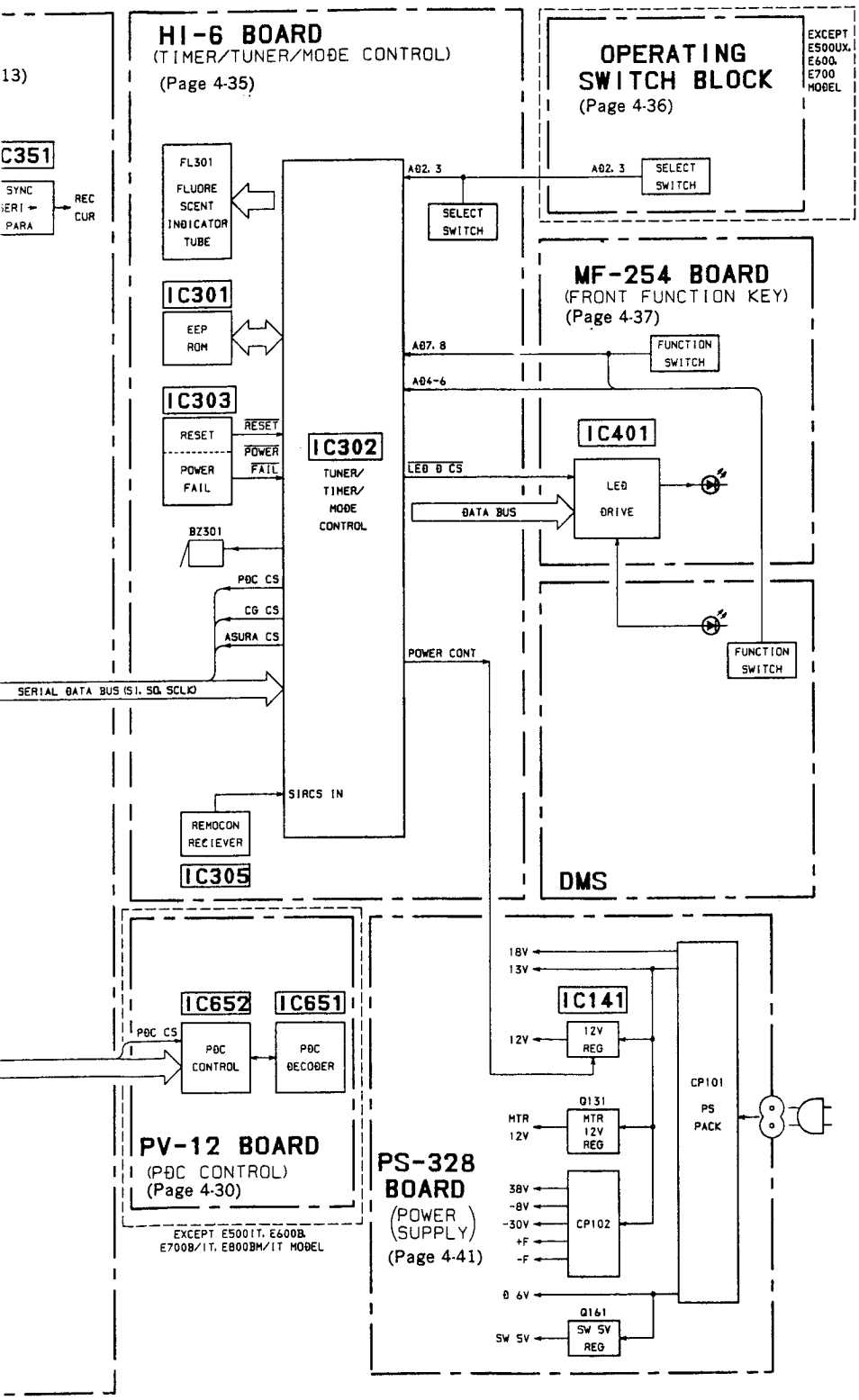



TPUT, NORMAL R/P AMP)
19)
RV-37 BOARD (Page 4-7)
(VIDEO R/P AMP, HIFI R/P AMP)
IC251
E600B, E700B, E800BM/EE/EG MODEL
IC201
VIDEO IN
SECAM PROCESS
MESEC
REC C
PB C
SECAM DET
DET
IC001
IC801
VIDEO IN
VIDEO OUT
Y/C PROCESS
C OUT
PB Y FM
PB C
REC Y FM
REC C
VIDEO REC/PB AMP
SP CH1
SP CH2
EP CH1
EP CH2
(SERIAL BUS)
REC CUR
EXCEPT E500 MODEL
AU 1CH
SP 1CH
SP 2CH
AU 2CH
EP 2CH
EP 1CH
EXCEPT E500 MODEL
DRUM MOTOR BOARD
M901 DRUM MOTOR
DRUM MOTOR DRIVE
DRUM PG/FG
DC-58 BOARD
(RELAY)
(Page 4-16)
CAPSTAN MOTOR BOARD
M902 CAP MOTOR
CAPSTAN MOTOR DRIVE
CAPSTAN FG
HF-34 BOARD
(AUDIO)
IC101
IC260
HIFI L
HIFI R
OUT L
OUT R
MOD A
NORMAL
AUDIO PROCESS
PB RF
REC RF
HIFI AUDIO REC/PB AMP
AUDIO CH1
AUDIO CH2
(SERIAL DATA BUS)
EXCEPT E500 MODEL
(Page 4-27)
IC501
C401
OSC
CG CS
CG AFC
C402
DEW SENSOR
M903 CAM MOTOR
CAM ENCORDER
IC607
IC851
NORMAL AUDIO REC/PB AMP
BIAS/ ERASE OSC
E500, E800 MODEL
EXCEPT E500, E800 MODEL
ACE HEAD
AUDIO REC/PB HEAD
CTL HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
Q001 TAKE UP END SENSOR
Q002 SUPPLY END SENSOR
PH002 T REEL FG
PH001 S REEL FG



For MAUR 8(

Tel:- 01
Ema

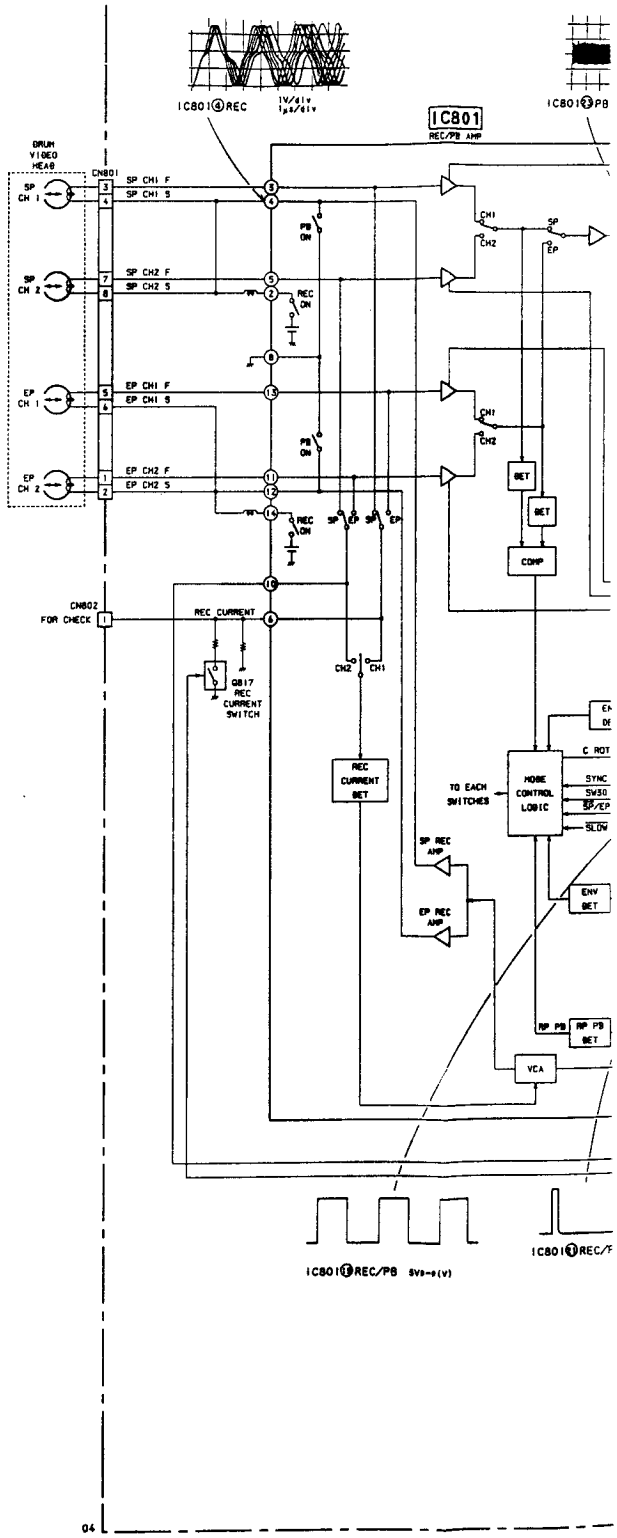

HI-6 BOARD
(TIMER/TUNER/MODE CONTROL)
(Page 4-35)
OPERATING SWITCH BLOCK
(Page 4-36)
EXCEPT E500UX, E600, E700 MODEL
MF-254 BOARD
(FRONT FUNCTION KEY)
(Page 4-37)
DMS
PV-12 BOARD
(PDC CONTROL)
(Page 4-30)
EXCEPT E500IT, E600B, E700B/IT, E800BM/IT MODEL
PS-328 BOARD
(POWER SUPPLY)
(Page 4-41)
FL301
FLUORESCENT INDICATOR TUBE
IC301
EEP ROM
IC303
RESET
POWER FAIL
IC302
TUNER/ TIMER/ MODE CONTROL
IC401
LED DRIVE
BZ301
REMOCON RECIEVER
IC305
SELECT SWITCH
FUNCTION SWITCH
A02, 3
A07, 8
A04-6
LED D CS
DATA BUS
PDC CS
CG CS
ASURA CS
POWER CONT
SIRCS IN
SERIAL DATA BUS (SI, SO, SCLK)
IC652
IC651
PDC CONTROL
PDC DECODER
IC141
18V
13V
12V
12V REG
Q131
HTR 12V
HTR 12V REG
38V
-8V
-30V
+F
-F
CP102
CP101
PS PACK
8.6V
Q161
SW 5V
SW 5V REG

3-2. VIDEO BLOCK DIAGRAM

• The boards which signals only pass through

RV-37 BOARD (VIDEO REC/PB AMP. Y/C PROCESS)

(See page 4-7)

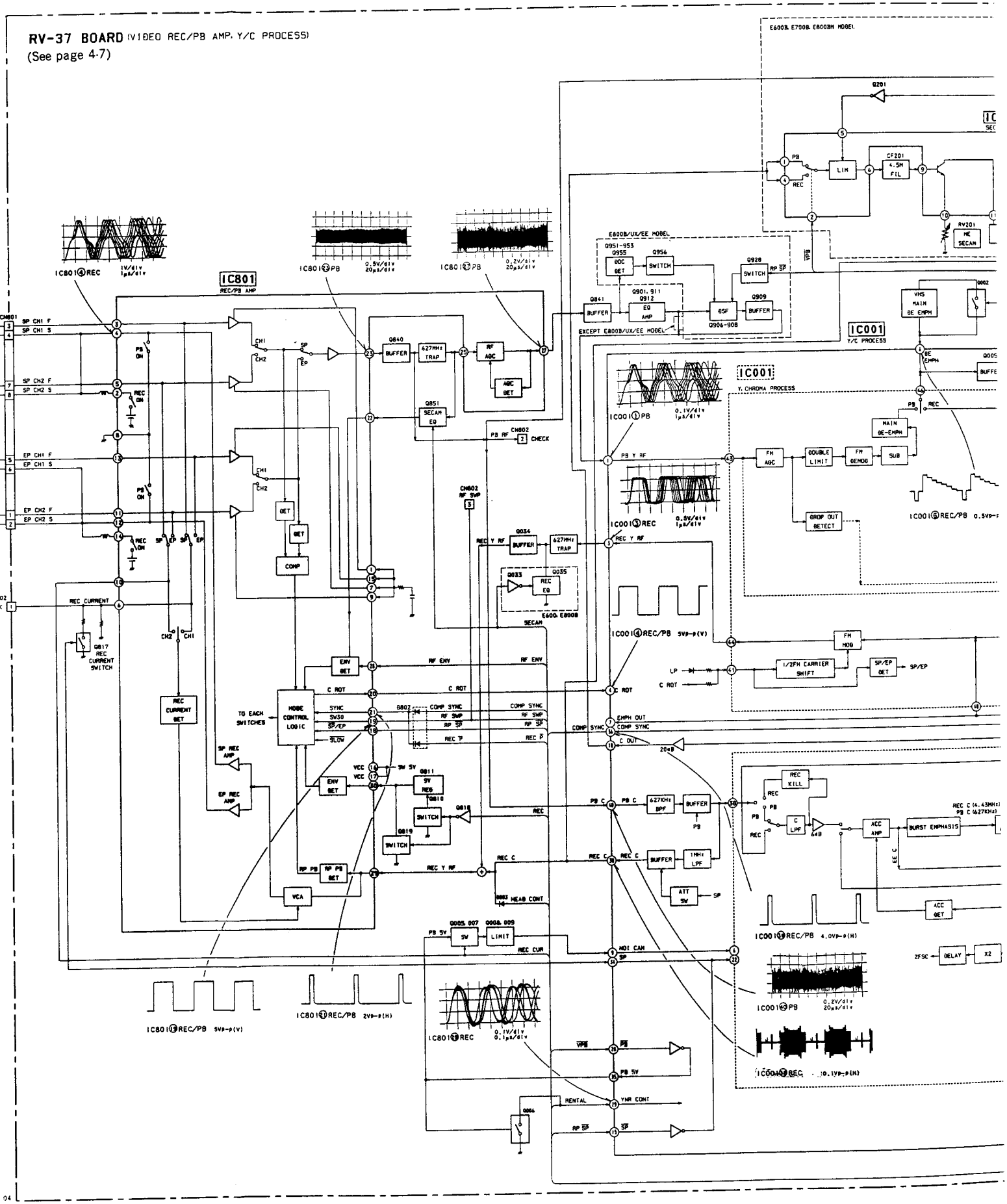


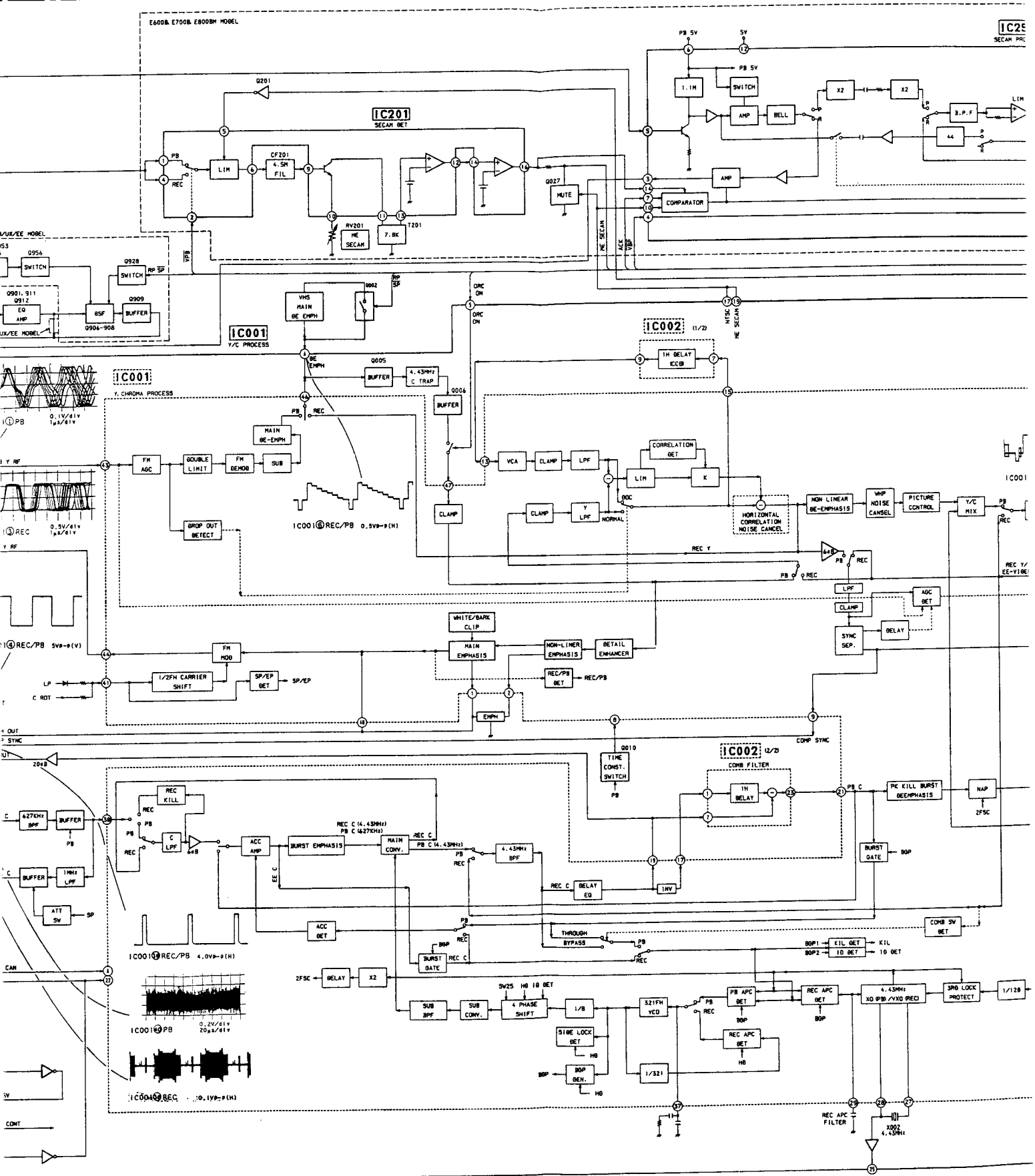
3-2. VIDEO BLOCK DIAGRAM

- The boards which signals only pass through may be omitted.

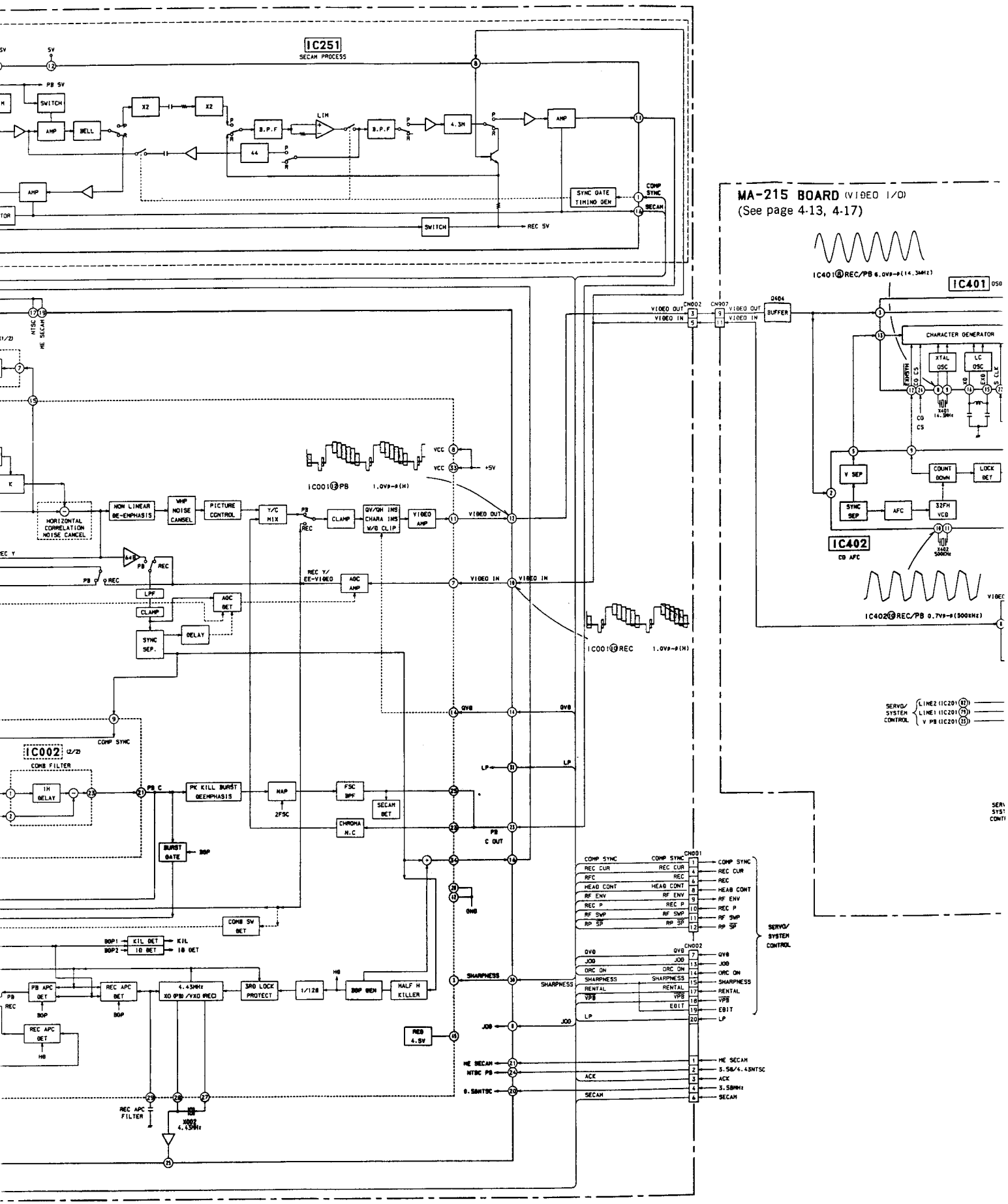
RV-37 BOARD (VIDEO REC/PB AMP, Y/C PROCESS)

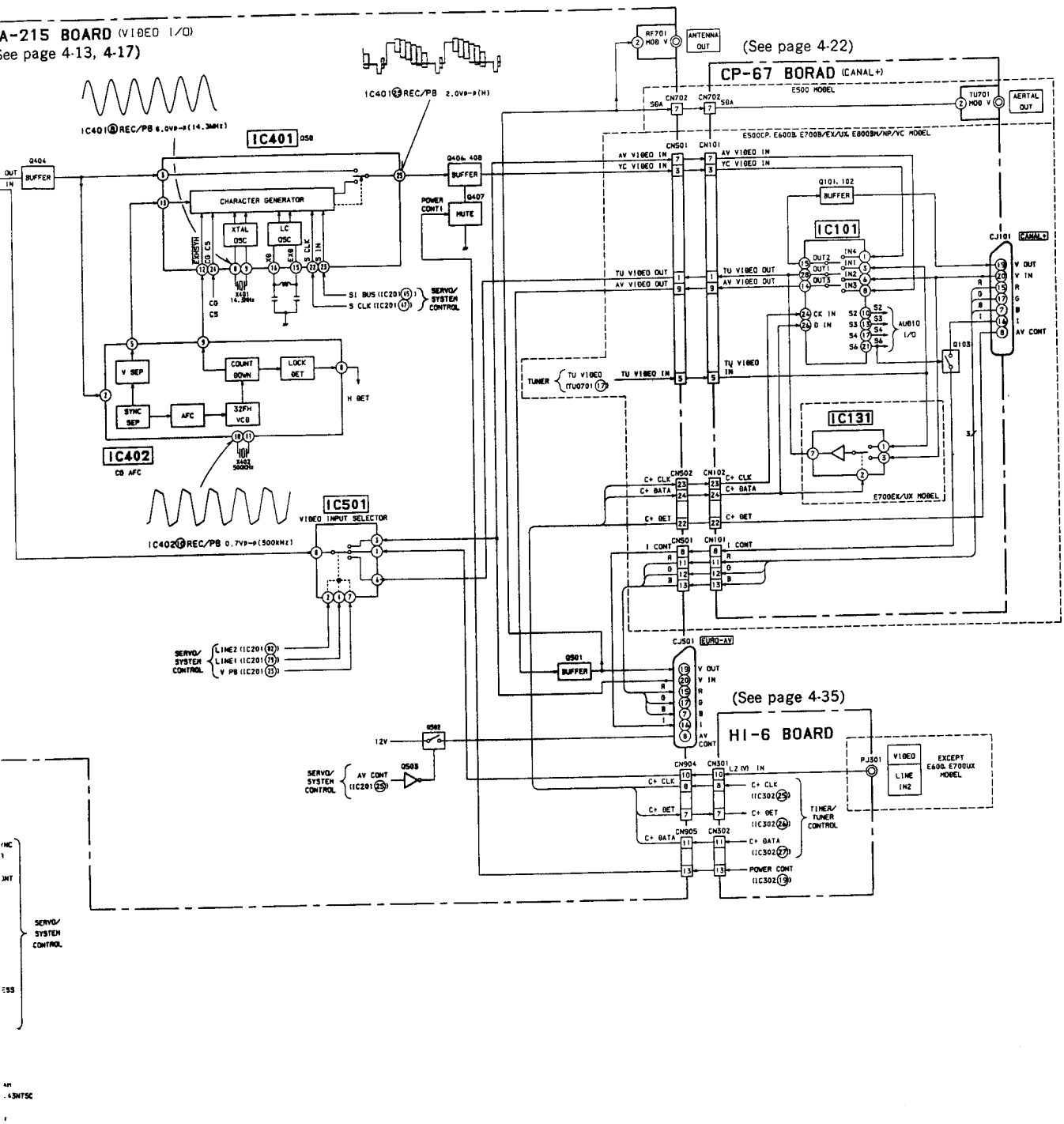
(See page 4-7)





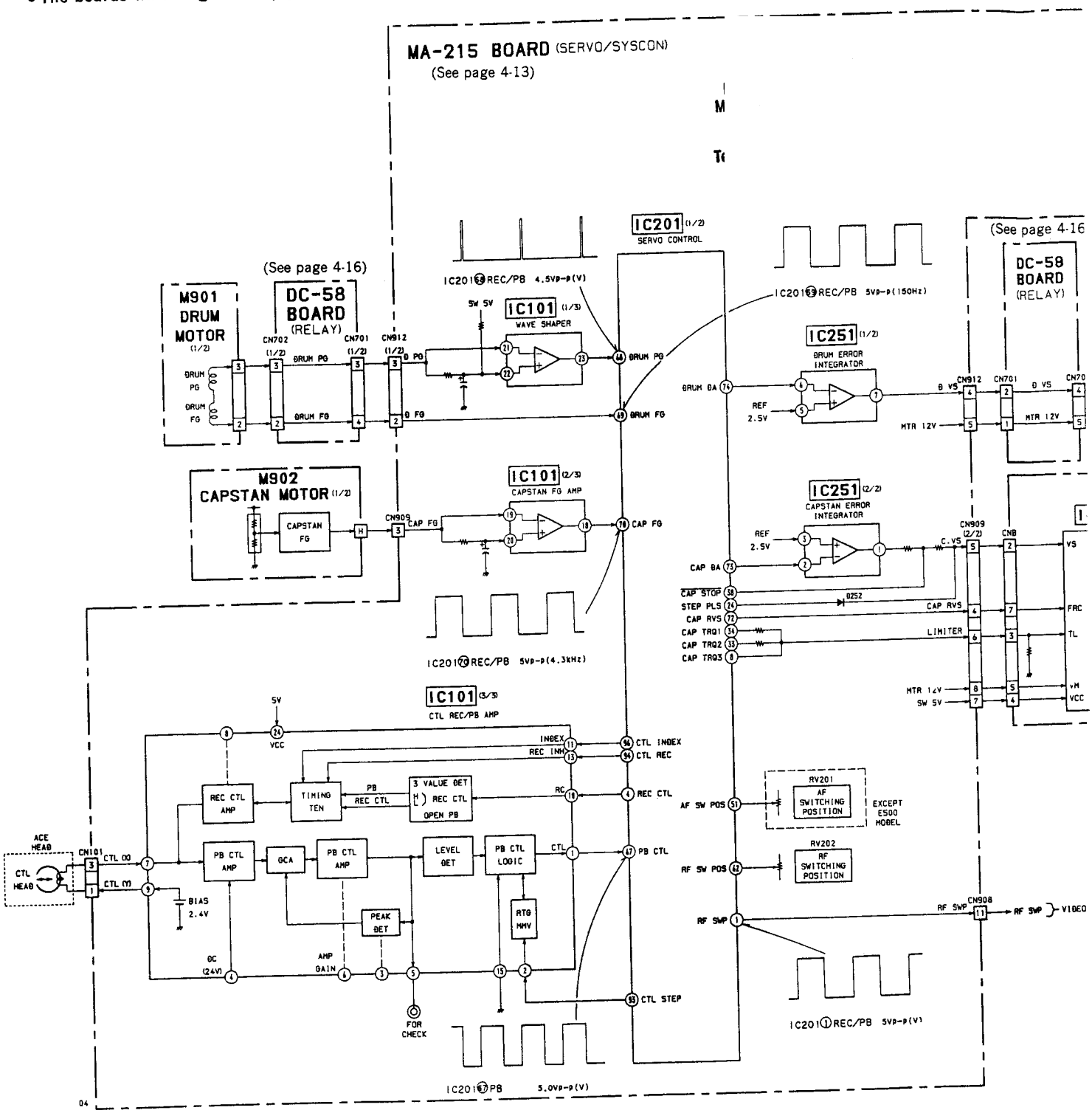
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd. Chinnor
Tel:- 01
Ema

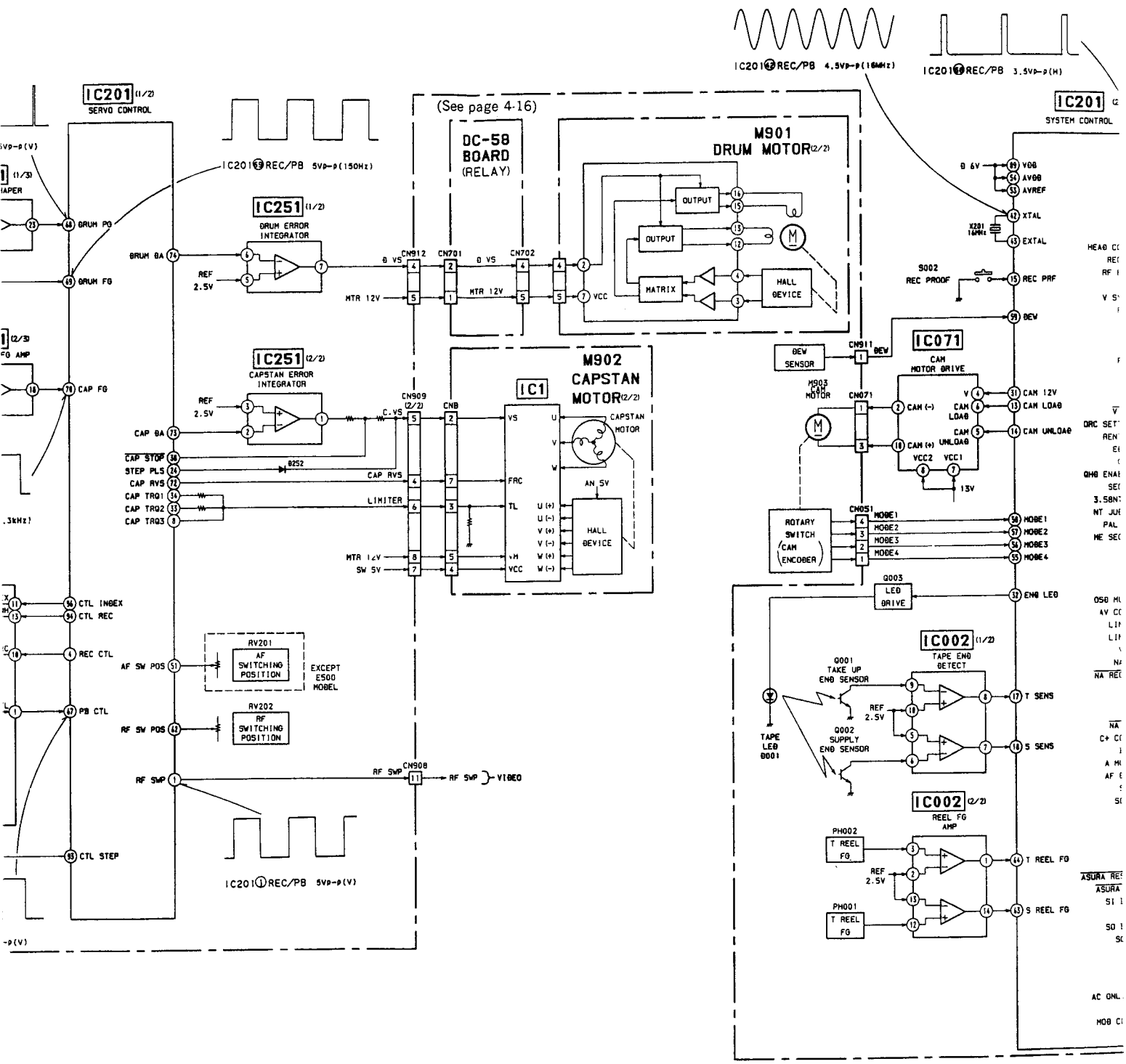

IC251
SECAM PROCESS
SWITCH
AMP
BELL
X2
X2
B.P.F
LIM
B.P.F
4.3M
AMP
44
AMP
SYNC GATE TIMING GEN
COMP SYNC
SECAM
SWITCH
REC 5V
MA-215 BOARD (VIDEO I/O)
(See page 4-13, 4-17)
IC401
IC402
BUFFER
CHARACTER GENERATOR
XTAL OSC
LC OSC
V SEP
SYNC SEP
AFC
COUNT DOWN
LOCK DET
32FH VCO
CB AFC
VIDEO OUT
VIDEO IN
CN002
CN907
Q404
NON LINEAR DE-EMPHASIS
WHP NOISE CANCEL
PICTURE CONTROL
Y/C MIX
CLAMP
QV/QH IMS CHARA IMS W/B CLIP
VIDEO AMP
HORIZONTAL CORRELATION NOISE CANCEL
REC Y/ EE-VIDEO
AGC AMP
AGC DET
LPF
CLAMP
SYNC SEP.
DELAY
IC002 (2/2)
COMB FILTER
1H DELAY
PK KILL BURST DEEMPHASIS
NAP
2FSC
FSC BPF
SECAM DET
CHROMA N.C
PB C OUT
BURST GATE
BGP
COMB SW DET
KIL DET
ID DET
PB APC DET
REC APC DET
4.43MHz XO PB /VXO (REC)
3RD LOCK PROTECT
1/128
BGP GEN
HALF H KILLER
REC APC FILTER
X002 4.43MHz
REC 4.5V
SHARPNESS
QVB
JOG
LP
HE SECAM
NTSC PB
9.58NTSC
ACK
SECAM
CN001
SERVO/ SYSTEM CONTROL
COMP SYNC
REC CUR
RFC
HEAD CONT
RF ENV
REC P
RF SWP
RP SP
RENTAL
EDIT
3.58/4.43NTSC
3.58MHz

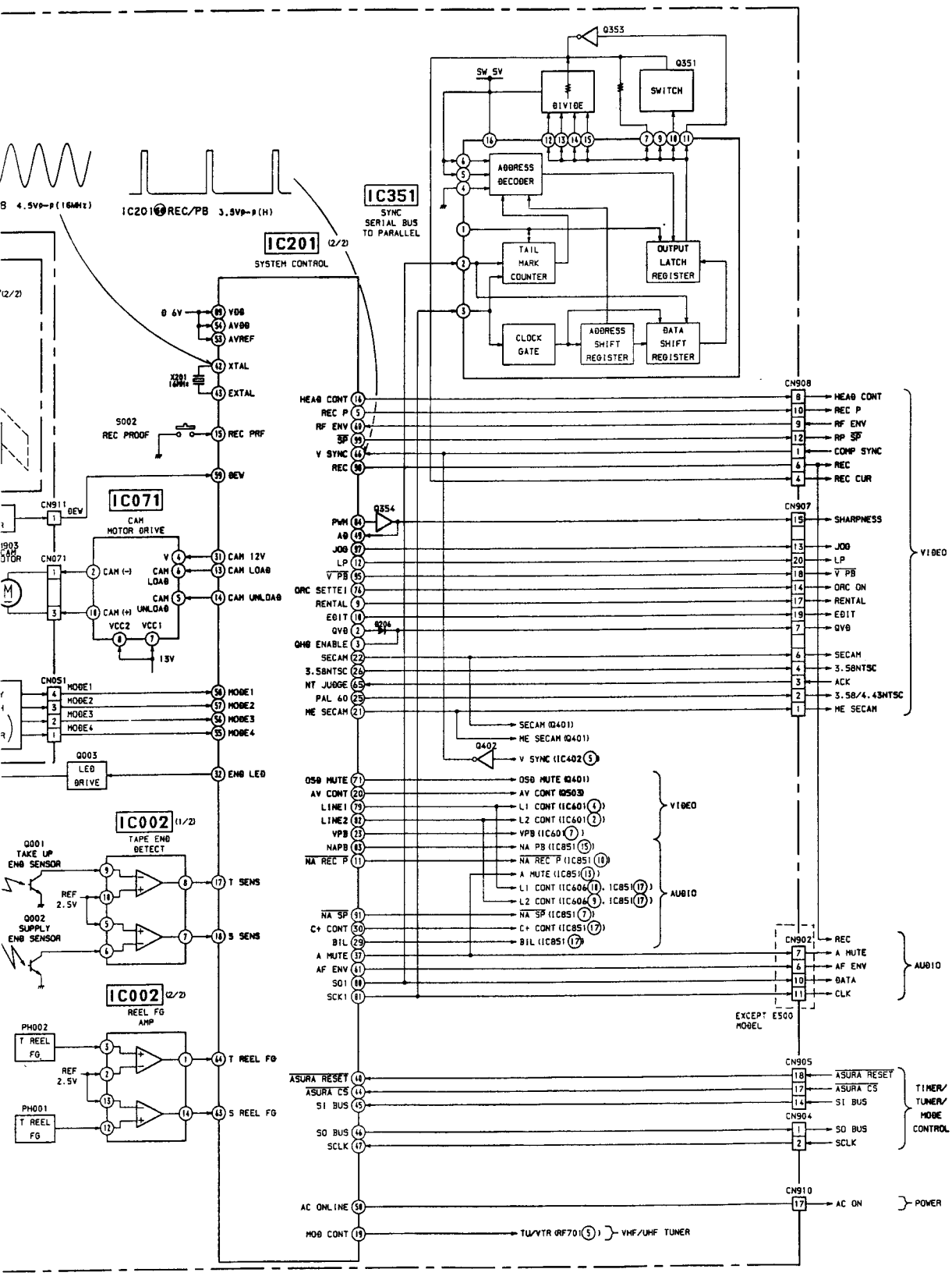

A-215 BOARD (VIDEO I/O)
See page 4-13, 4-17)
IC401 REC/PB 6.0Vp-p(14.3MHz)
IC401 REC/PB 2.0Vp-p(H)
IC401
IC402
IC501
CHARACTER GENERATOR
XTAL OSC
LC OSC
BUFFER
MUTE
POWER CONT
V SEP
SYNC SEP
AFC
COUNT DOWN
LOCK DET
32FH VCO
H DET
CB AFC
IC402 REC/PB 0.7Vp-p(500KHz)
VIDEO INPUT SELECTOR
SERVO/ SYSTEM CONTROL
SI BUS (IC201 15)
S CLK (IC201 17)
LINE2 (IC201 82)
LINE1 (IC201 79)
V PB (IC201 33)
AV CONT (IC201 25)
12V
Q502
Q503
Q504 408
Q407
Q404
Q501
Q101, 102
Q103
CP-67 BORAD (CANAL+)
E500 MODEL
E500CP, E600B, E700B/EX/UX, E800SM/NP/VC MODEL
E700EX/UX MODEL
RF701 HOR V
ANTENNA OUT
TU701 HOR V
AERIAL OUT
CN702
SGA
CN501
CN101
AV VIDEO IN
YC VIDEO IN
TU VIDEO OUT
AV VIDEO OUT
TU VIDEO IN
IC101
IC131
AU810 I/O
CK IN
D IN
CJ101
CANAL+
V OUT
V IN
R
G
B
I
AV CONT
TUNER
TU VIDEO (TU0701 17)
C+ CLK
C+ DATA
C+ DET
CN502
CN102
I CONT
CJ501
EURO-AV
(See page 4-22)
(See page 4-35)
HI-6 BOARD
CN904
CN301
CN905
CN302
L2 (V) IN
TIMER/ TUNER CONTROL
C+ CLK (IC302 25)
C+ DET (IC302 26)
C+ DATA (IC302 27)
POWER CONT (IC302 19)
PJ501
VIDEO
LINE IN2
EXCEPT E600, E700UX MODEL

3-3. SERVO, SYSTEM CONTROL BLOCK DIAGRAM

- The boards which signals only pass through may be omitted.

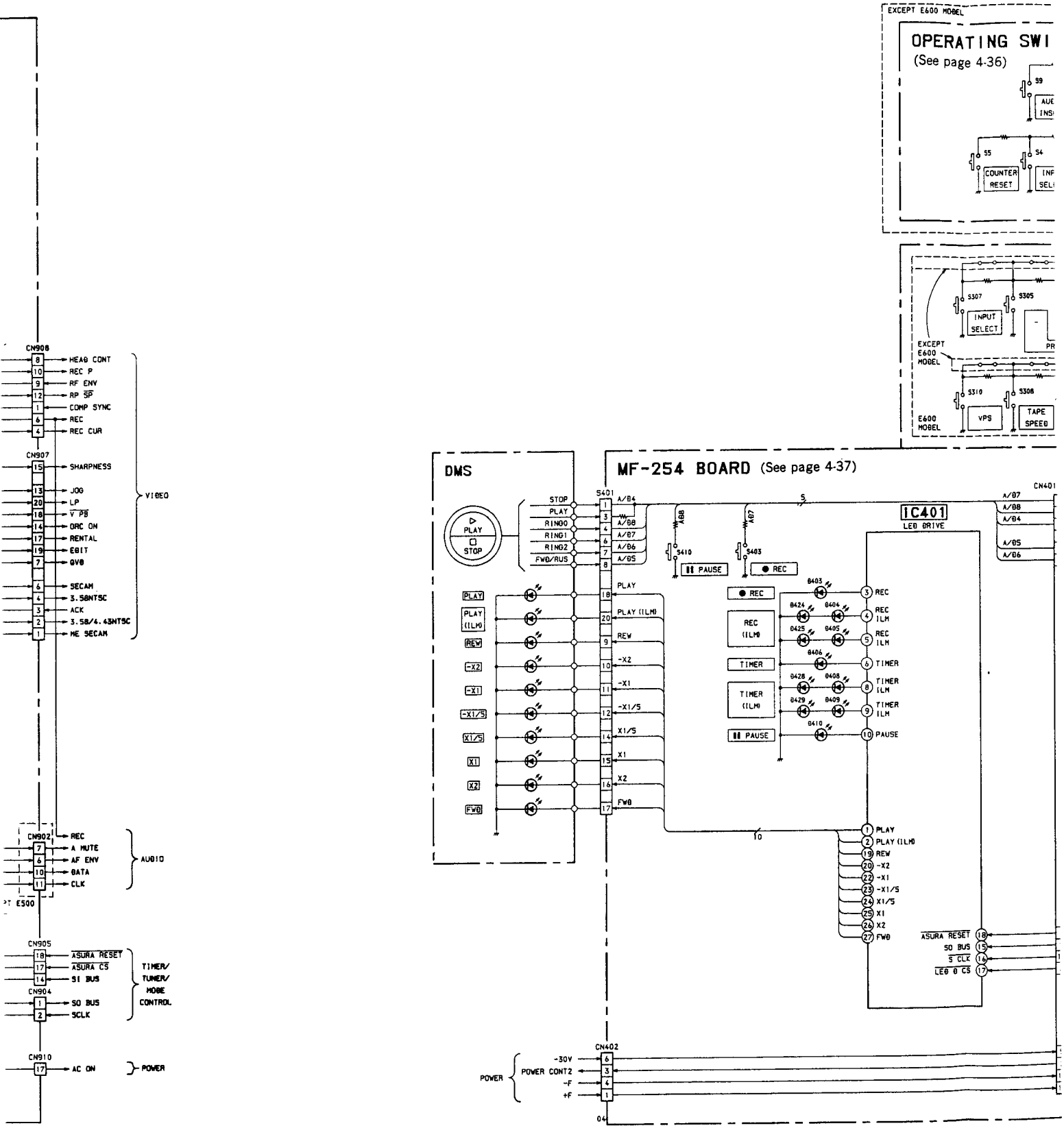



IC201 (1/2)
SERVO CONTROL
(See page 4-16)
DC-58 BOARD (RELAY)
M901 DRUM MOTOR(2/2)
OUTPUT
OUTPUT
MATRIX
HALL DEVICE
IC251 (1/2)
DRUM ERROR INTEGRATOR
IC251 (2/2)
CAPSTAN ERROR INTEGRATOR
M902 CAPSTAN MOTOR(2/2)
IC1
CAPSTAN MOTOR
HALL DEVICE
IC201 REC/PB 5Vp-p(150Hz)
IC201 REC/PB 4.5Vp-p(16MHz)
IC201 REC/PB 3.5Vp-p(H)
IC201 REC/PB 5Vp-p(V)
IC201 SYSTEM CONTROL
IC071
CAM MOTOR DRIVE
DEW SENSOR
ROTARY SWITCH (CAM ENCODER)
Q003 LED DRIVE
IC002 (1/2)
TAPE END DETECT
Q001 TAKE UP END SENSOR
Q002 SUPPLY END SENSOR
TAPE LED D001
IC002 (2/2)
REEL FG AMP
PH002 T REEL FG
PH001 T REEL FG
S002 REC PROOF
RV201 AF SWITCHING POSITION
EXCEPT E500 MODEL
RV202 RF SWITCHING POSITION
DRUM PG
DRUM FG
CAP FG
CTL INDEX
CTL REC
REC CTL
PB CTL
CTL STEP
DRUM BA
CAP BA
CAP STOP
STEP PLS
CAP RVS
CAP TRQ1
CAP TRQ2
CAP TRQ3
AF SW POS
RF SW POS
RF SWP
REF 2.5V
MTR 12V
SW 5V
LIMITER
AN 5V
D VS
C VS
CAP FG
REC PRF
DEW
CAM 12V
CAM LOAD
CAM UNLOAD
MODE1
MODE2
MODE3
MODE4
END LED
T SENS
S SENS
T REEL FG
S REEL FG
VIDEO


IC351
SYNC SERIAL BUS TO PARALLEL
IC201 (2/2)
SYSTEM CONTROL
Q353
Q351
SW 5V
DIVIDE
SWITCH
ADDRESS DECODER
TAIL MARK COUNTER
OUTPUT LATCH REGISTER
CLOCK GATE
ADDRESS SHIFT REGISTER
DATA SHIFT REGISTER
IC2016 REC/PB 3.5Vp-p(H)
8 4.5Vp-p(16MHz)
8.6V
VDD
AVDD
AVREF
XTAL
EXTAL
X201 16MHz
S002
REC PROOF
REC PRF
DEW
IC071
CAM MOTOR DRIVE
CN911
CN071
CAM (-)
CAM (+)
CAM LOAD
CAM UNLOAD
VCC2
VCC1
12V
CAM 12V
CAM LOAD
CAM UNLOAD
CN051
MODE1
MODE2
MODE3
MODE4
Q003
LED DRIVE
ENB LED
IC002 (1/2)
TAPE END DETECT
Q001
TAKE UP END SENSOR
Q002
SUPPLY END SENSOR
REF 2.5V
T SENS
S SENS
IC002 (2/2)
REEL FG AMP
PH002
T REEL FG
PH001
T REEL FG
T REEL FG
S REEL FG
HEAD CONT
REC P
RF ENV
SP
V SYNC
REC
PWM
A8
JOG
LP
V PB
ORC SETTEI
RENTAL
EDIT
QV8
QH8 ENABLE
SECAM
3.58NTSC
NT JUDGE
PAL 60
ME SECAM
Q354
D204
Q402
SECAM (Q401)
ME SECAM (Q401)
V SYNC (IC402 5)
OSD MUTE
AV CONT
LINE1
LINE2
VPB
NAPB
NA REC P
NA SP
C+ CONT
BIL
A MUTE
AF ENV
SO1
SCK1
OSD MUTE (Q401)
AV CONT (Q503)
L1 CONT (IC601 4)
L2 CONT (IC601 2)
VPB (IC601 7)
NA PB (IC851 15)
NA REC P (IC851 18)
A MUTE (IC851 13)
L1 CONT (IC606 18, IC851 17)
L2 CONT (IC606 9, IC851 17)
NA SP (IC851 7)
C+ CONT (IC851 17)
BIL (IC851 17)
VIDEO
AUDIO
CN908
HEAD CONT
REC P
RF ENV
RP SP
COMP SYNC
REC
REC CUR
CN907
SHARPNESS
JOG
LP
V PB
ORC ON
RENTAL
EDIT
QV8
SECAM
3.58NTSC
ACK
3.58/4.43NTSC
ME SECAM
CN902
REC
A MUTE
AF ENV
DATA
CLK
EXCEPT E500 MODEL
ASURA RESET
ASURA CS
SI BUS
SO BUS
SCLK
CN905
CN904
TIMER/ TUNER/ MODE CONTROL
AC ONLINE
MOD CONT
CN910
AC ON
POWER
TU/VTR (RF701 5)
VHF/UHF TUNER

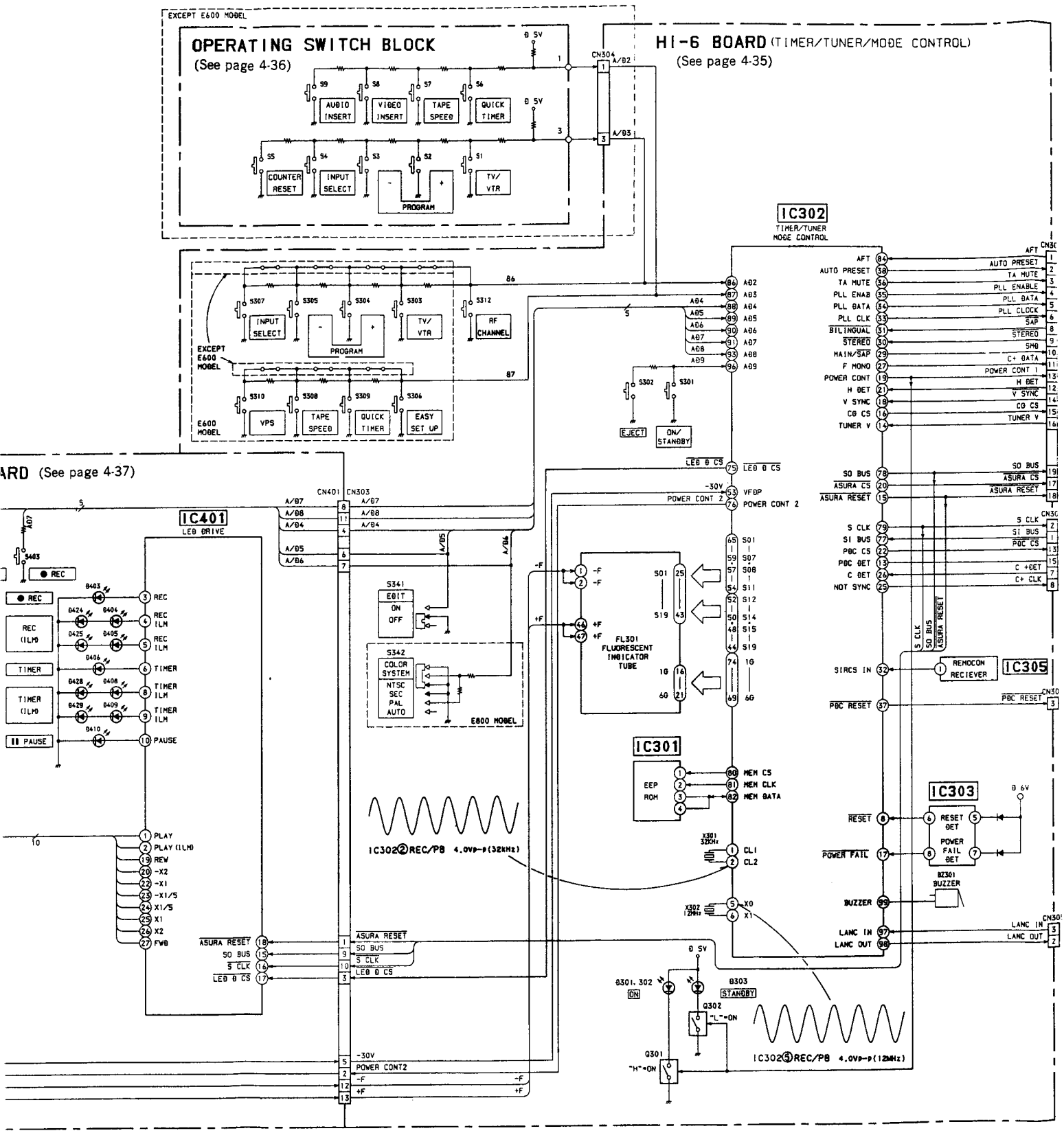
3-4. TIMER, TUNER, MODE CONTROL BLOCK DIAGRAM

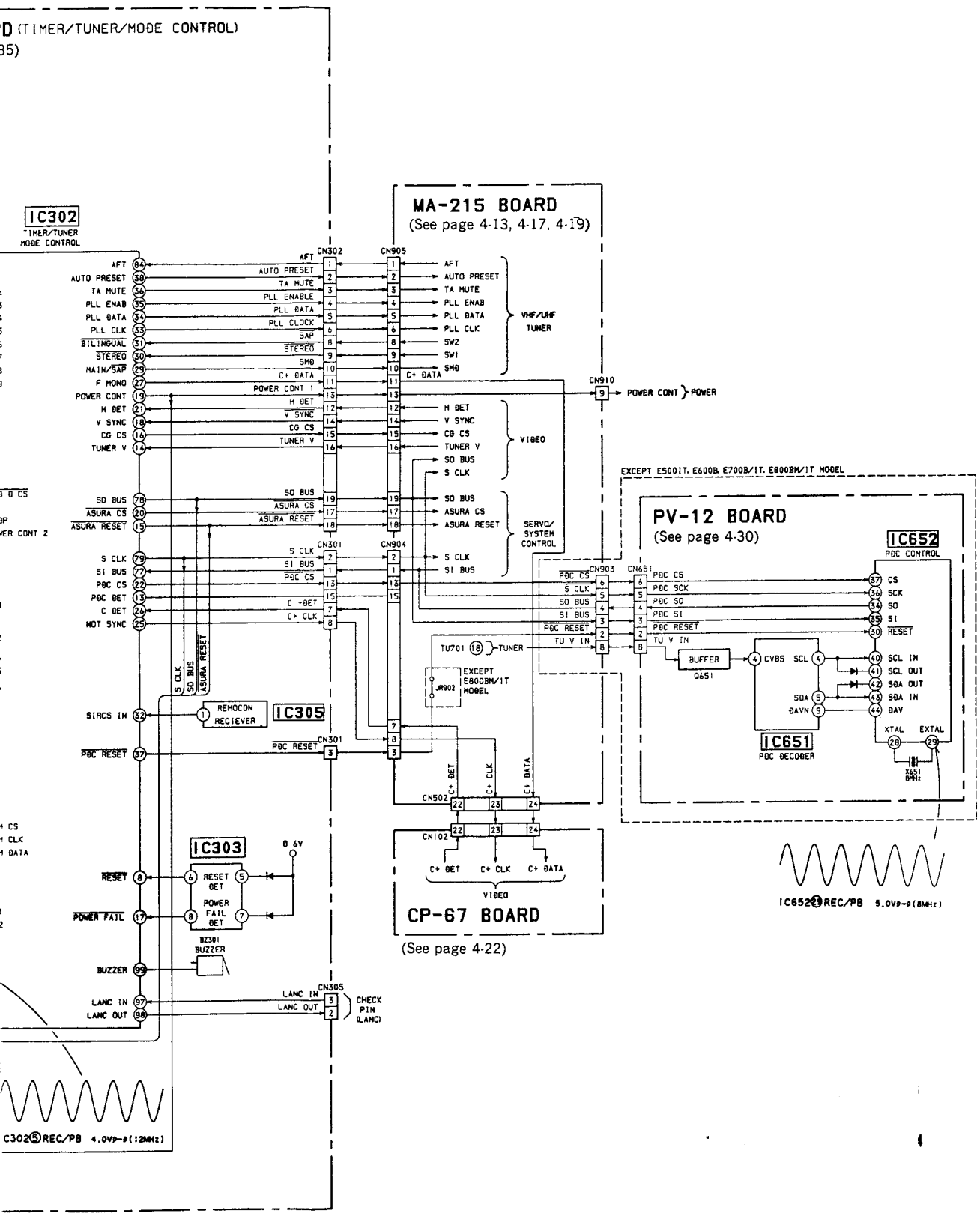
• The boards which signals only pass through may be omitted.



CONTROL BLOCK DIAGRAM

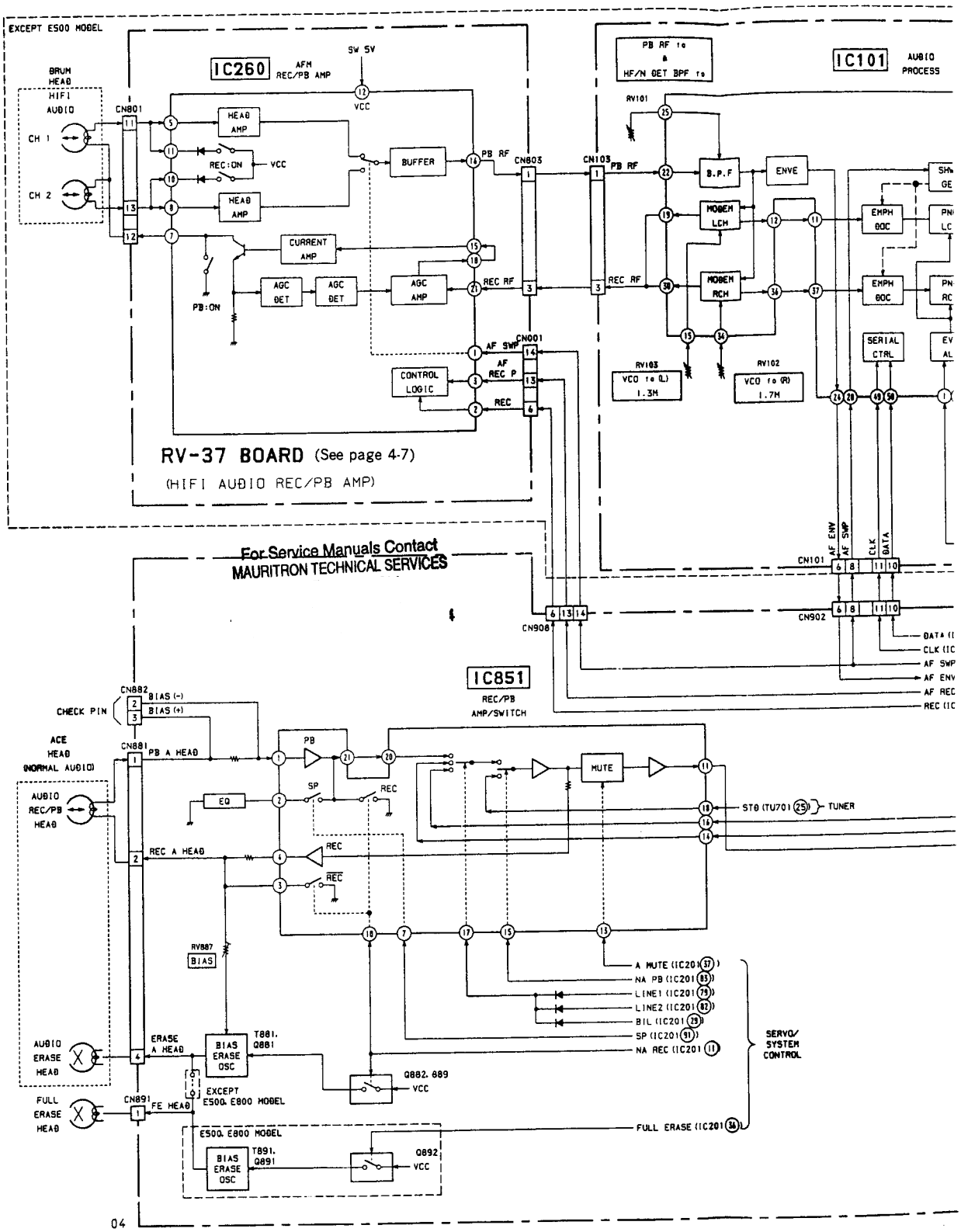
ass through may be omitted.




D (TIMER/TUNER/MODE CONTROL)
35)
IC302
TIMER/TUNER MODE CONTROL
MA-215 BOARD
(See page 4-13, 4-17, 4-19)
CN302
CN905
AFT
AUTO PRESET
TA MUTE
PLL ENAB
PLL DATA
PLL CLK
BILINGUAL
STEREO
MAIN/SAP
F MONO
POWER CONT
H DET
V SYNC
CG CS
TUNER V
SO BUS
ASURA CS
ASURA RESET
S CLK
SI BUS
P0C CS
P0C DET
C DET
HOT SYNC
SIRCS IN
P0C RESET
VHF/UHF TUNER
VIDEO
SERVO/ SYSTEM CONTROL
CN910
POWER
CN301
CN904
CN903
CN651
EXCEPT E500IT, E600B, E700B/IT, E800BM/IT MODEL
PV-12 BOARD
(See page 4-30)
IC652
P0C CONTROL
P0C SCK
P0C SO
P0C SI
TU V IN
BUFFER
Q651
CVBS
SCL
SDA
DAVN
SCL IN
SCL OUT
SDA OUT
SDA IN
DAV
XTAL
EXTAL
IC651
P0C DECODER
X651 8MHz
TU701
TUNER
JR902
EXCEPT E800BM/IT MODEL
REMOCON RECIEVER
IC305
CN502
CN102
C+ DET
C+ CLK
C+ DATA
IC303
0.6V
RESET
POWER FAIL
BZ301
BUZZER
CN305
LANC IN
LANC OUT
CHECK PIN (LANC)
IC652 REC/PB 5.0Vp-p(8MHz)
IC302 REC/PB 4.0Vp-p(12MHz)
CP-67 BOARD
(See page 4-22)

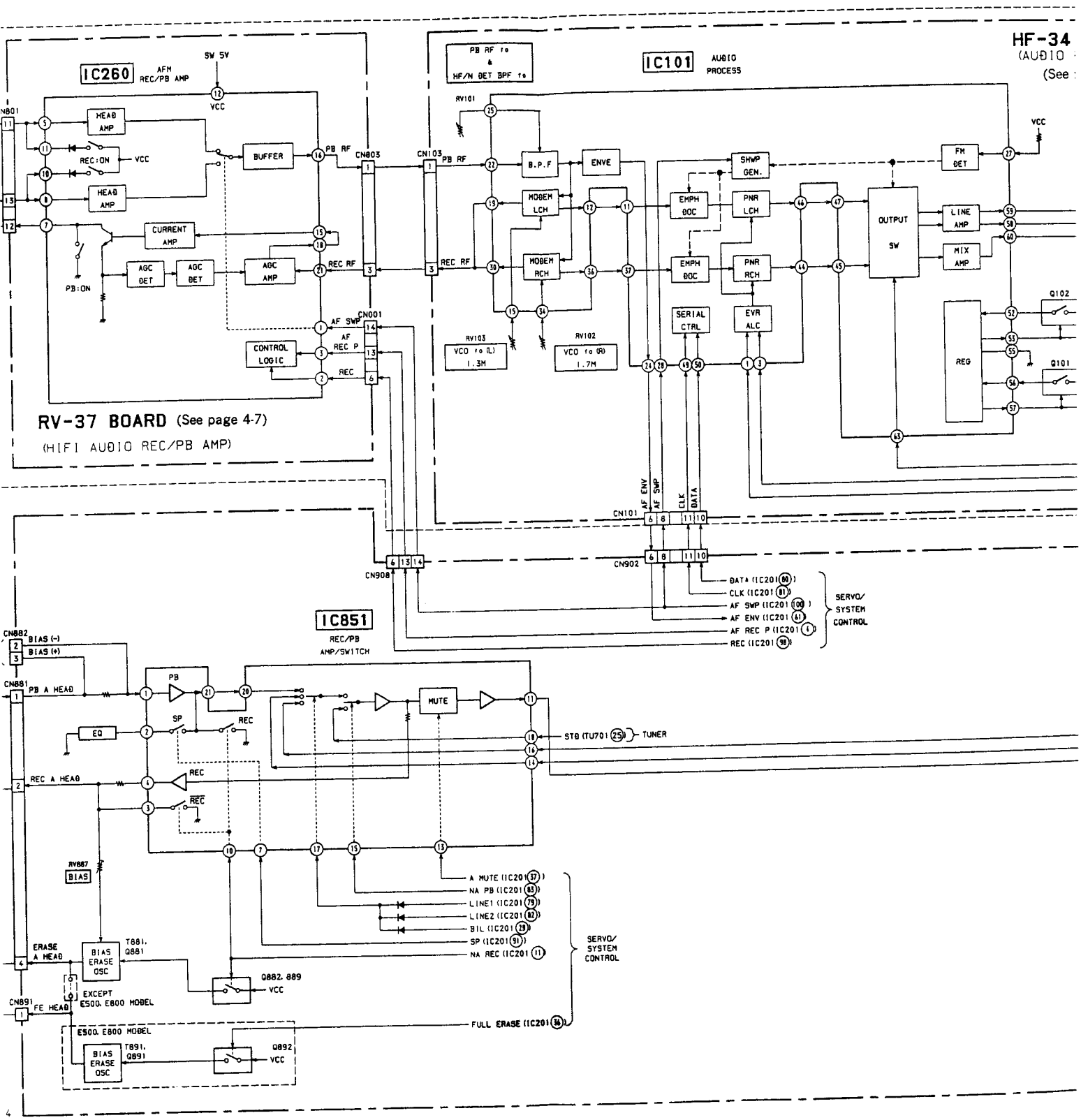
3-5. AUDIO BLOCK DIAGRAM

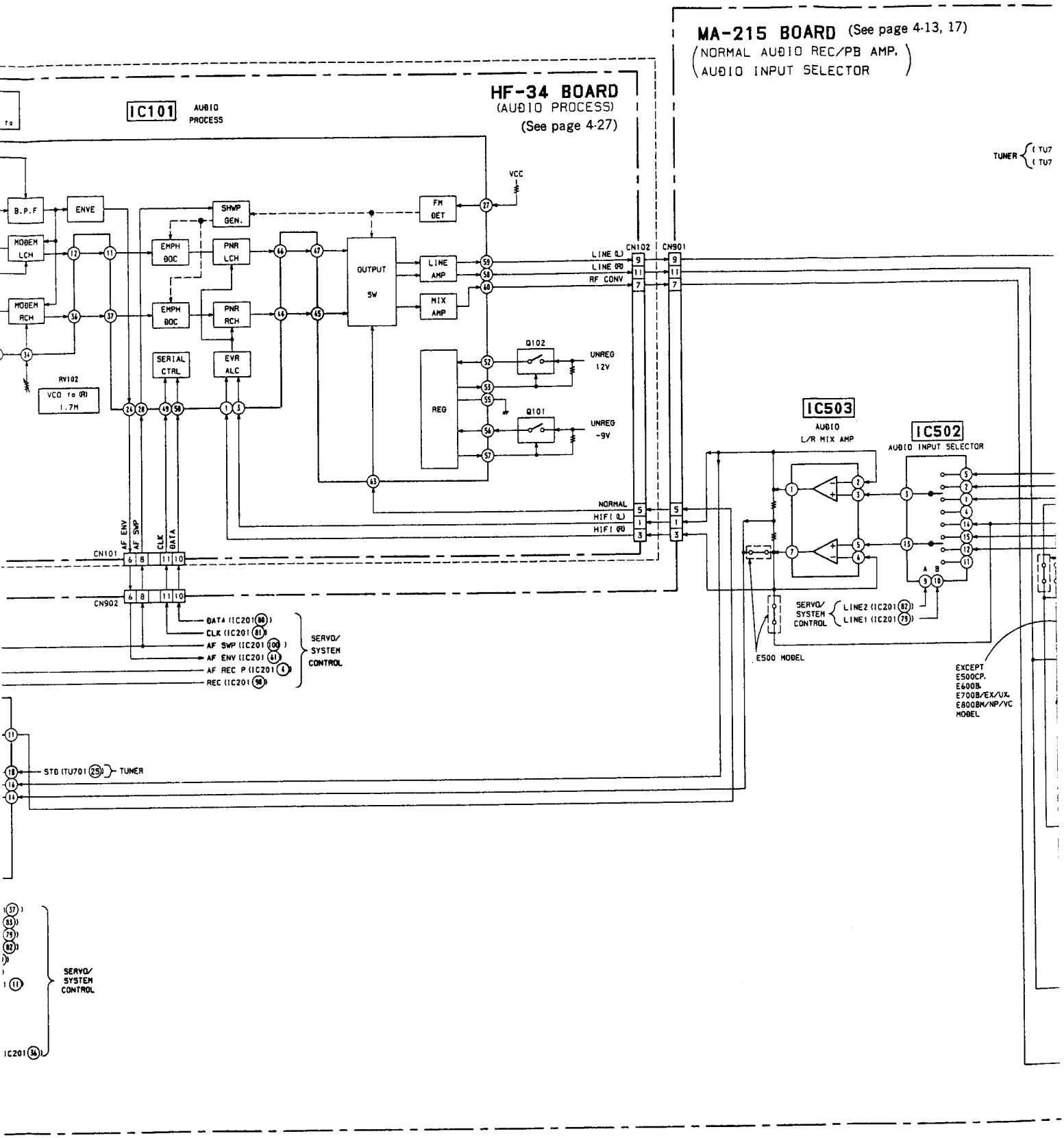
- The boards which signals only pass through may be omitted.

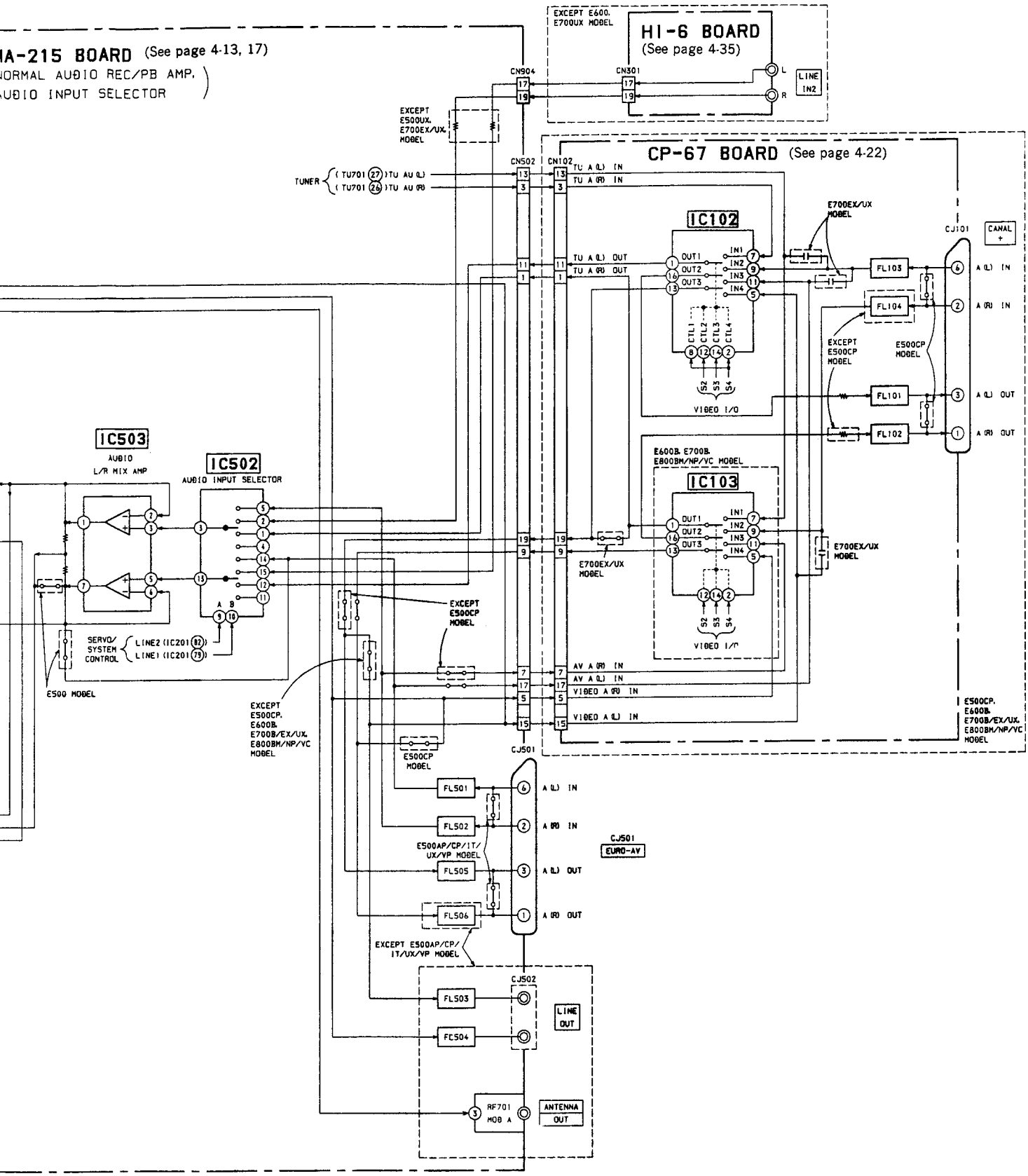


BLOCK DIAGRAM

hich signals only pass through may be omitted.

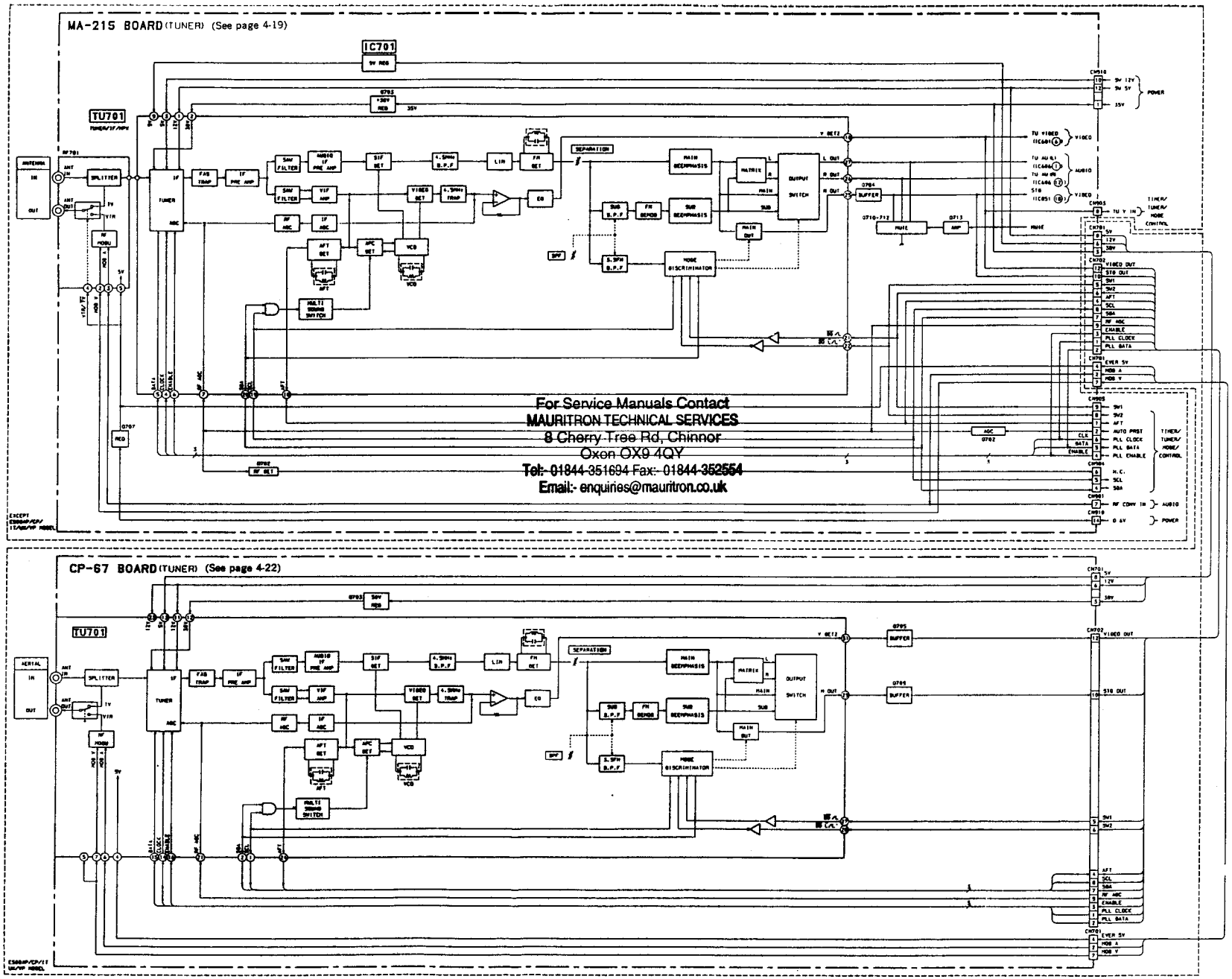



MA-215 BOARD (See page 4-13, 17)
(NORMAL AUDIO REC/PB AMP.
AUDIO INPUT SELECTOR)
HF-34 BOARD
(AUDIO PROCESS)
(See page 4-27)
IC101 AUDIO PROCESS
TUNER
VCC
B.P.F
ENVE
SHWP GEN.
FM DET
MODEM LCH
MODEM RCH
EMPH BOC
PNR LCH
PNR RCH
OUTPUT SW
LINE AMP
MIX AMP
SERIAL CTRL
EVR ALC
RV102
VCO fo (R) 1.7M
REG
Q102
Q101
UNREG 12V
UNREG -9V
CN102
CN901
LINE (L)
LINE (R)
RF CONV
NORMAL
HIFI (L)
HIFI (R)
CN101
CN902
AF ENV
AF SWP
CLK
DATA
DATA (IC201 86)
CLK (IC201 81)
AF SWP (IC201 80)
AF ENV (IC201 61)
AF REC P (IC201 4)
REC (IC201 98)
SERVO/ SYSTEM CONTROL
STB (TU701 25)
IC503
AUDIO L/R MIX AMP
IC502
AUDIO INPUT SELECTOR
SERVO/ SYSTEM CONTROL
LINE2 (IC201 82)
LINE1 (IC201 79)
E500 MODEL
EXCEPT E500CP, E600B, E700B/EX/UX, E800BM/NP/VC MODEL


HA-215 BOARD (See page 4-13, 17)
NORMAL AUDIO REC/PB AMP.
AUDIO INPUT SELECTOR
EXCEPT E600, E700UX MODEL
HI-6 BOARD
(See page 4-35)
CN904
CN301
LINE IN2
EXCEPT E500UX, E700EX/UX MODEL
CP-67 BOARD (See page 4-22)
CN502
CN102
TUNER
TU A (L) IN
TU A (R) IN
IC102
E700EX/UX MODEL
CJ101
CANAL +
TU A (L) OUT
TU A (R) OUT
FL103
FL104
FL101
FL102
EXCEPT E500CP MODEL
E500CP MODEL
VIDEO I/O
IC503
AUDIO L/R MIX AMP
IC502
AUDIO INPUT SELECTOR
E600B, E700B, E800BM/NP/VC MODEL
IC103
SERVO/ SYSTEM CONTROL
LINE2 (IC201 82)
LINE1 (IC201 79)
E500 MODEL
EXCEPT E500CP, E600B, E700B/EX/UX, E800BM/NP/VC MODEL
EXCEPT E500CP MODEL
AV A (R) IN
AV A (L) IN
VIDEO A (R) IN
VIDEO A (L) IN
CJ501
FL501
FL502
E500AP/CP/1T/ UX/VP MODEL
FL505
FL506
CJ501 EURO-AV
EXCEPT E500AP/CP/ 1T/UX/VP MODEL
CJ502
FL503
FC504
LINE OUT
RF701 MOD A
ANTENNA OUT

3-6. TUNER BLOCK DIAGRAM

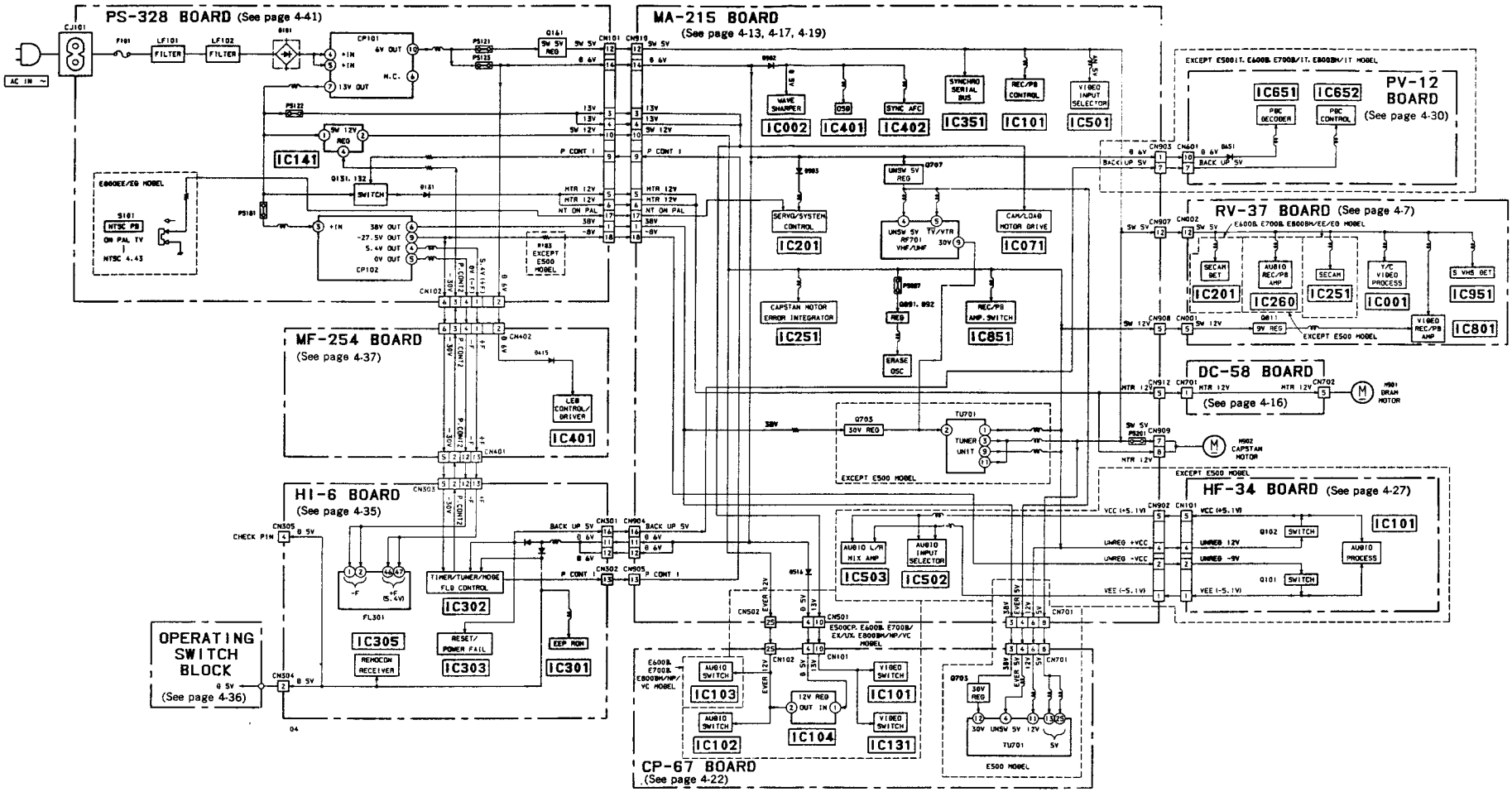
• The boards which signals only pass through may be omitted.



For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844 351694 Fax:- 01844 352554
Email:- enquiries@mauritron.co.uk

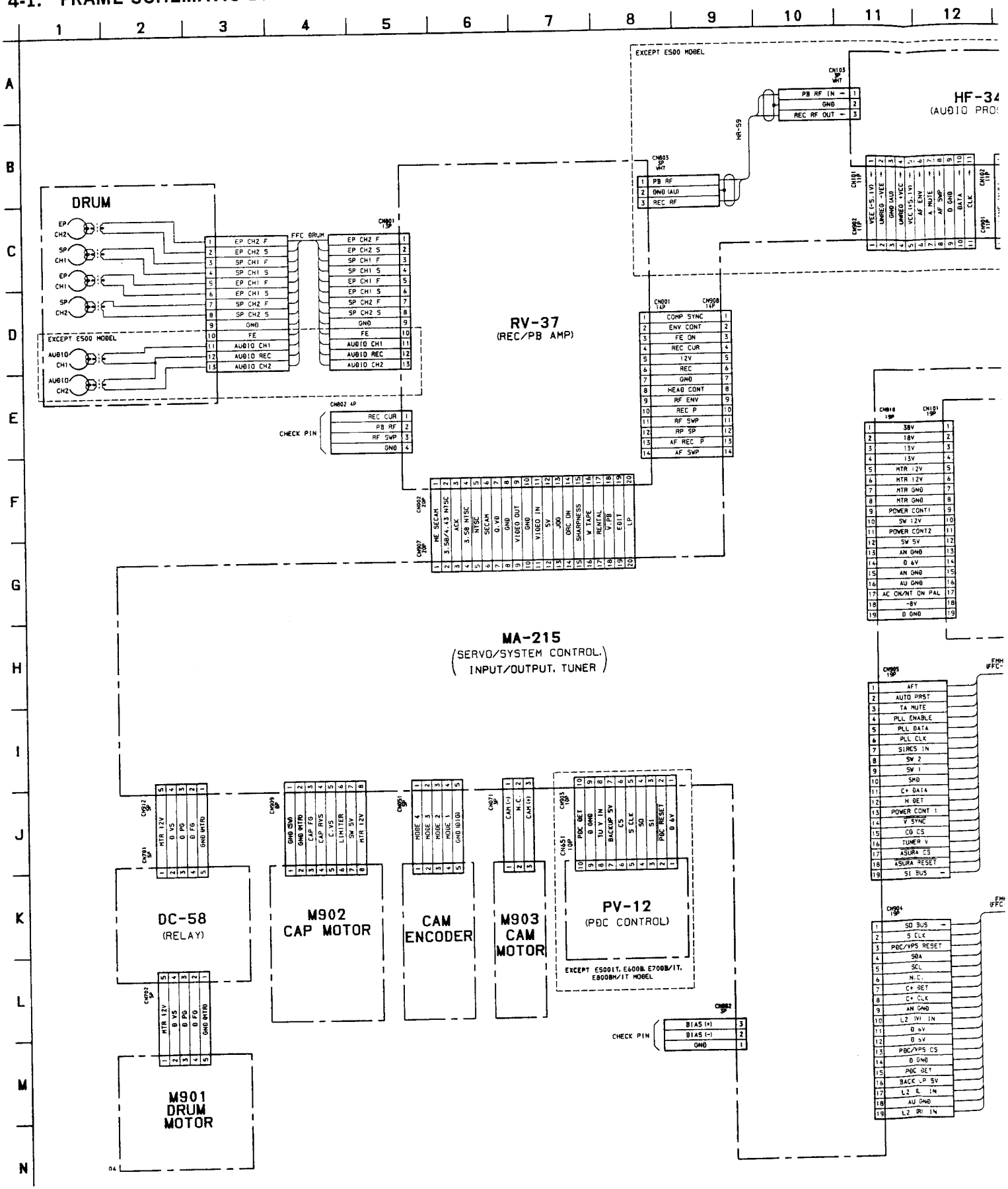
3-7. POWEOR BLOCK DIAGRAM

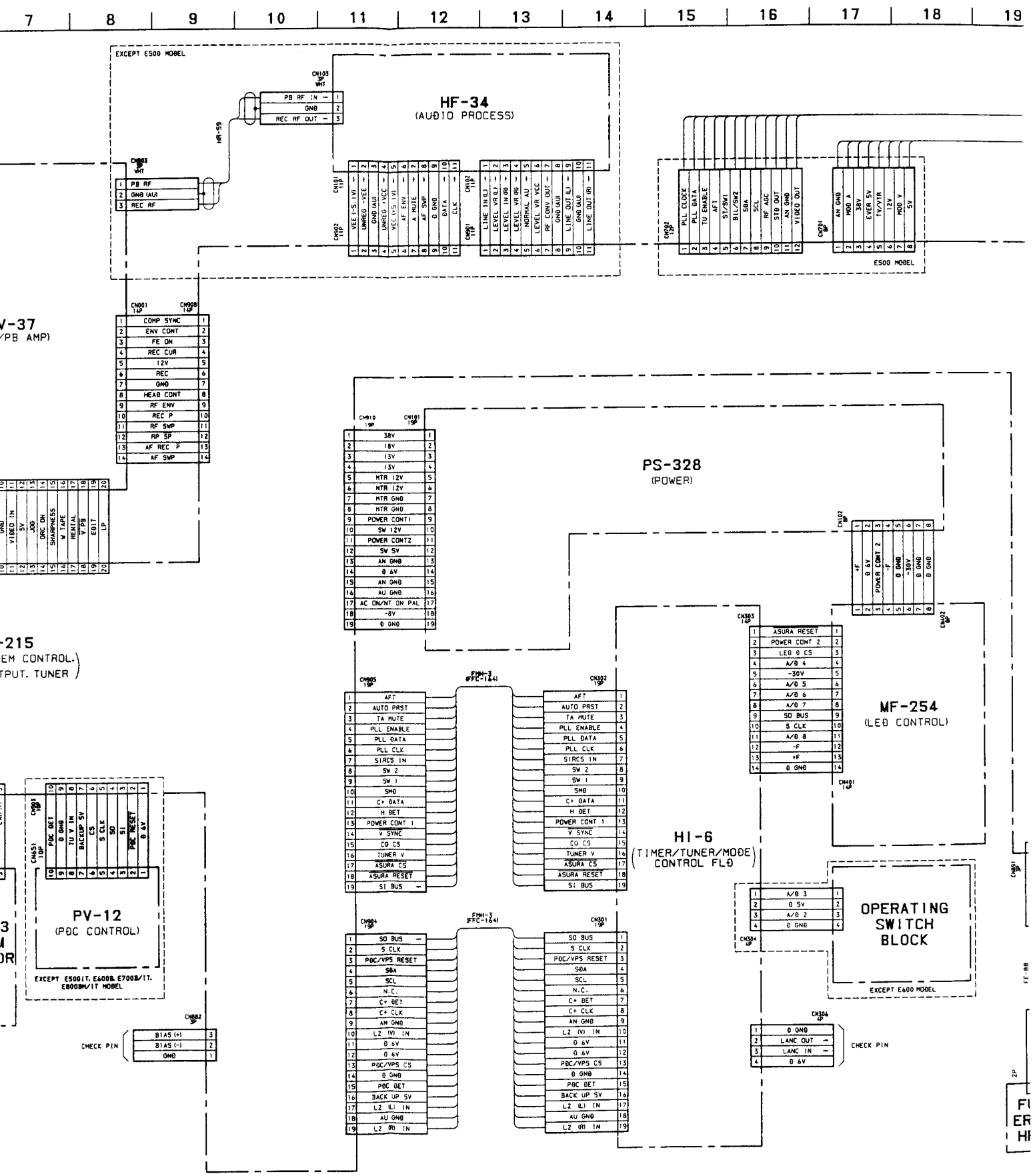
• The boards which signals only pass through may be omitted.

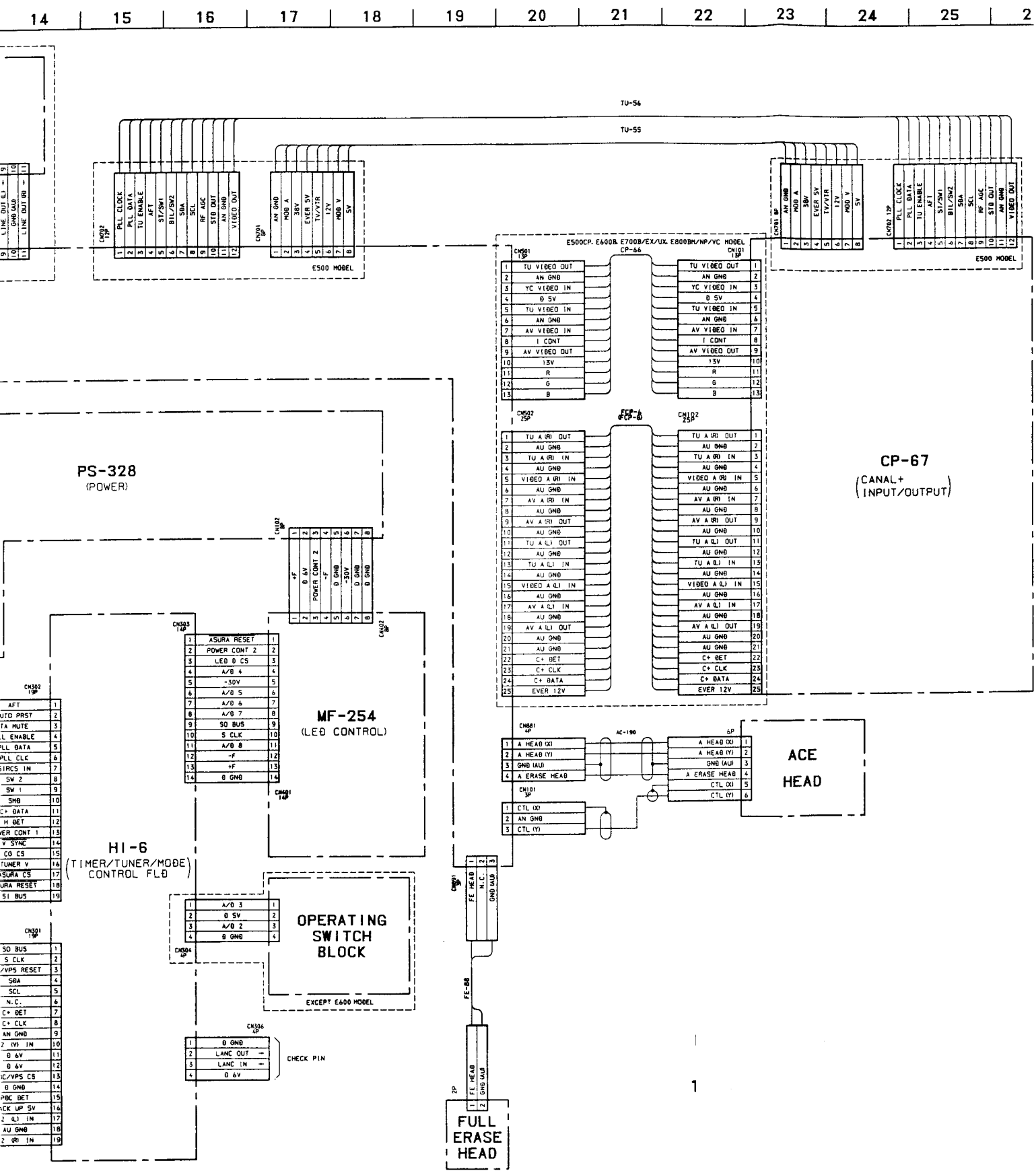


SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

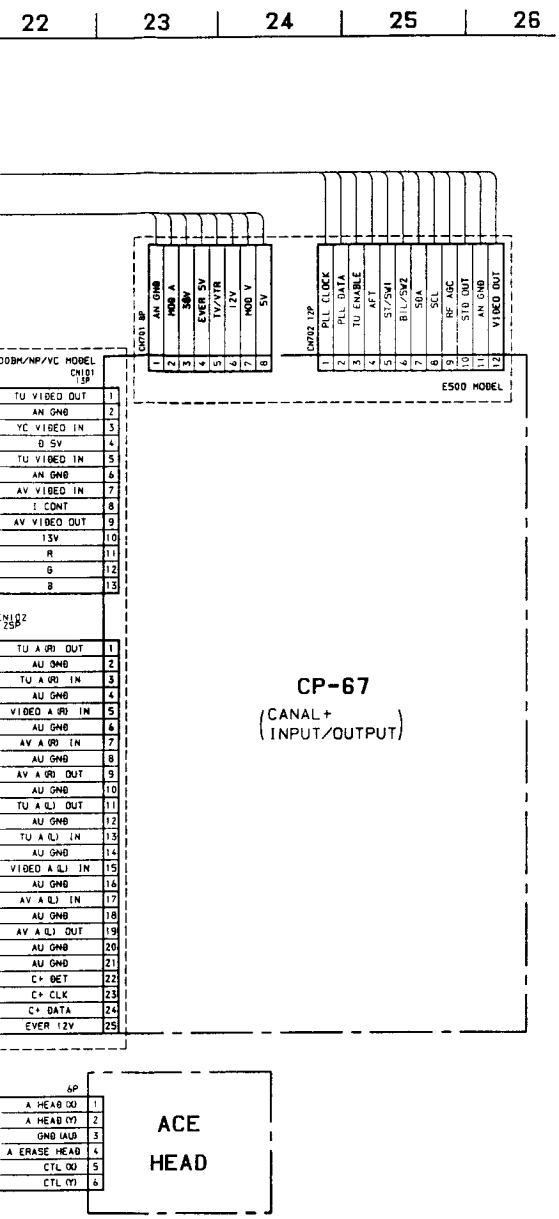
4-1. FRAME SCHEMATIC DIAGRAMS




7
8
9
10
11
12
13
14
15
16
17
18
19
EXCEPT E500 MODEL
HF-34
(AUDIO PROCESS)
PB RF IN
GND
REC RF OUT
HR-59
PB RF
GND (AU)
REC RF
E500 MODEL
PS-328
(POWER)
MF-254
(LED CONTROL)
HI-6
(TIMER/TUNER/MODE CONTROL FL)
PV-12
(PDC CONTROL)
OPERATING SWITCH BLOCK
EXCEPT E600 MODEL
EXCEPT E500 IT, E600B, E700B/IT, E800BW/IT MODEL
CHECK PIN
CHECK PIN
COMP SYNC
ENV CONT
FE ON
REC CUR
12V
REC
GND
HEAD CONT
RF ENV
REC P
RF SWP
RP SP
AF REC P
AF SWP
38V
18V
13V
13V
MTR 12V
MTR 12V
MTR GND
MTR GND
POWER CONT1
SW 12V
POWER CONT2
SW 5V
AN GND
8 6V
AN GND
AU GND
AC ON/NT ON PAL
-8V
8 GND
AFT
AUTO PRST
TA MUTE
PLL ENABLE
PLL DATA
PLL CLK
SIRCS IN
SW 2
SW 1
SMD
C+ DATA
H DET
POWER CONT 1
V SYNC
CD CS
TUNER V
ASURA CS
ASURA RESET
SI BUS
SO BUS
S CLK
PDC/VPS RESET
SDA
SCL
N.C.
C+ DET
C+ CLK
AN GND
L2 (V) IN
0 6V
0 6V
PDC/VPS CS
0 GND
PDC DET
BACK UP 5V
L2 (L) IN
AU GND
L2 (R) IN
ASURA RESET
POWER CONT 2
LED 0 CS
A/D 4
-30V
A/D 5
A/D 6
A/D 7
SD BUS
S CLK
A/D 8
-F
+F
0 GND
A/D 3
0 5V
A/D 2
0 GND
0 GND
LANC OUT
LANC IN
8 6V
BIAS (+)
BIAS (-)
GND


14
15
16
17
18
19
20
21
22
23
24
25
2
TU-56
TU-55
E500 MODEL
E500CP, E600B, E700B/EX/UX, E800BM/NP/VC MODEL
CP-66
E500 MODEL
PS-328
(POWER)
CP-67
(CANAL+
INPUT/OUTPUT)
MF-254
(LED CONTROL)
HI-6
(TIMER/TUNER/MODE
CONTROL FLD)
OPERATING
SWITCH
BLOCK
EXCEPT E600 MODEL
CHECK PIN
ACE
HEAD
FULL
ERASE
HEAD
AC-190
1

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is is printed in each block.)

● For printed wiring boards.

- O : Through hole.
- ▩ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side. *
- Circled numbers refer to waveforms.

● For schematic diagram.

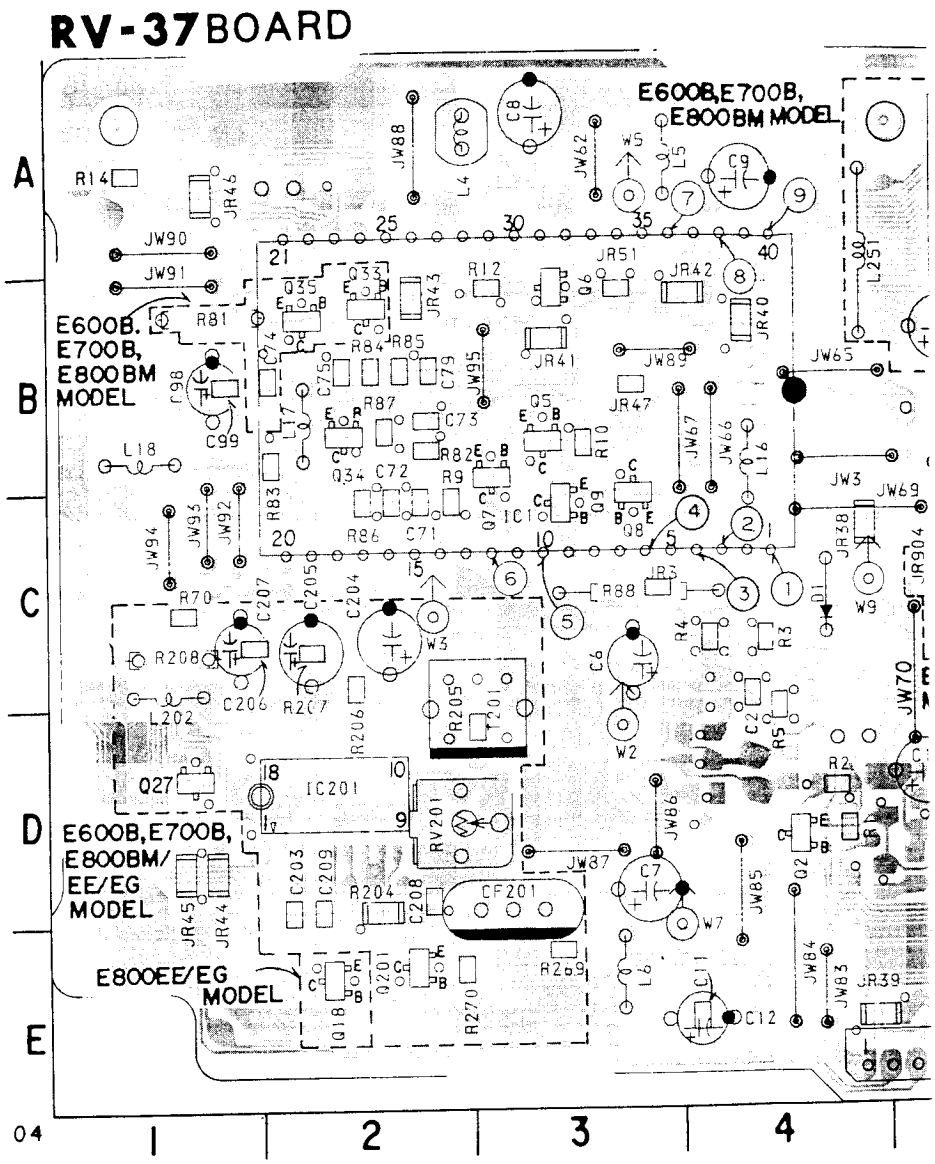
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W unless otherwise noted.
- Chip resistor are 1/8W or 1/10W unless otherwise noted.
  kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF.
  50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊣▭⊢ : nonflammable resistor.
- ⊣≈⊢ : fusible resistor.
- ▭ : panel designation.
- △ . : internal component.
- ▭ : adjustment for repair. *
- ——— : B + Line. *
- — — : B — Line. *
- ⇨ : IN/OUT direction of (+, —) B line. *
- Circled numbers refer to waveforms. *
- Voltages are dc between ground and measurement points. *
- Readings are taken with a color-bar signal input. *
- Readings are taken with a digital multimeter (DC10MΩ). *
- Voltage variations may be noted due to normal production tolerances. *

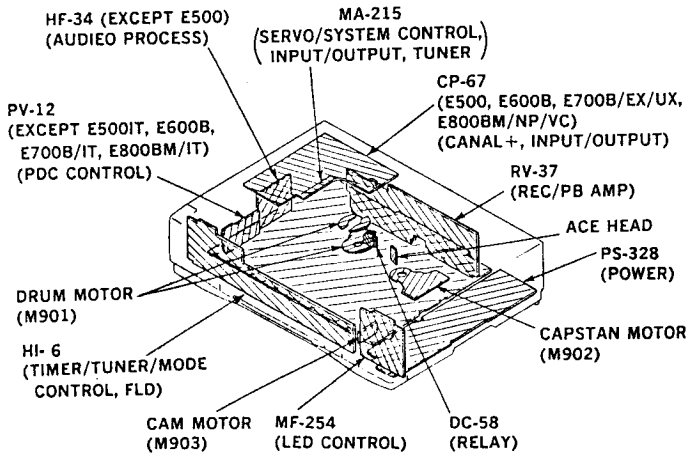
Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

*: indicated by the color red.

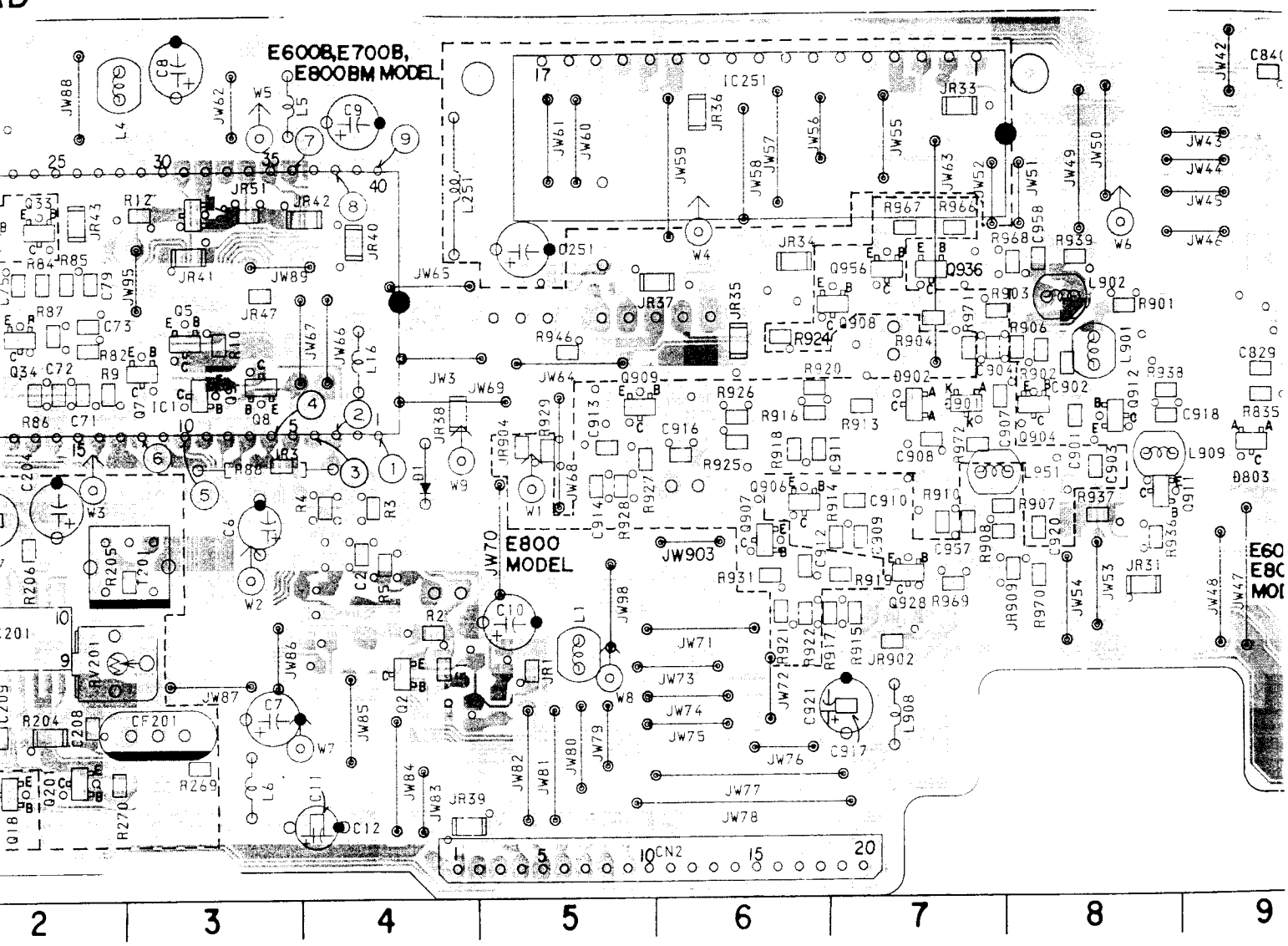
RV-37 (Y/C VIDEO PROCESS, HiFi AUDIO, HEAD AMP) PRINTED WIRING BOAI
— Ref. No. RV-37 BOARD : 2,000 series —

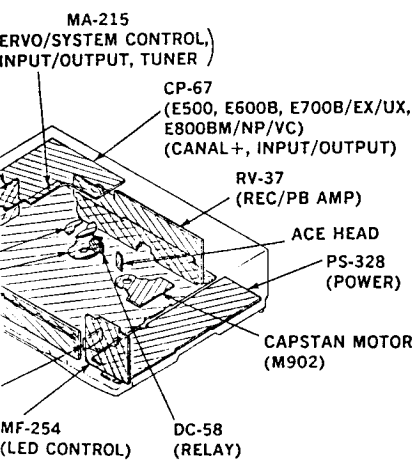


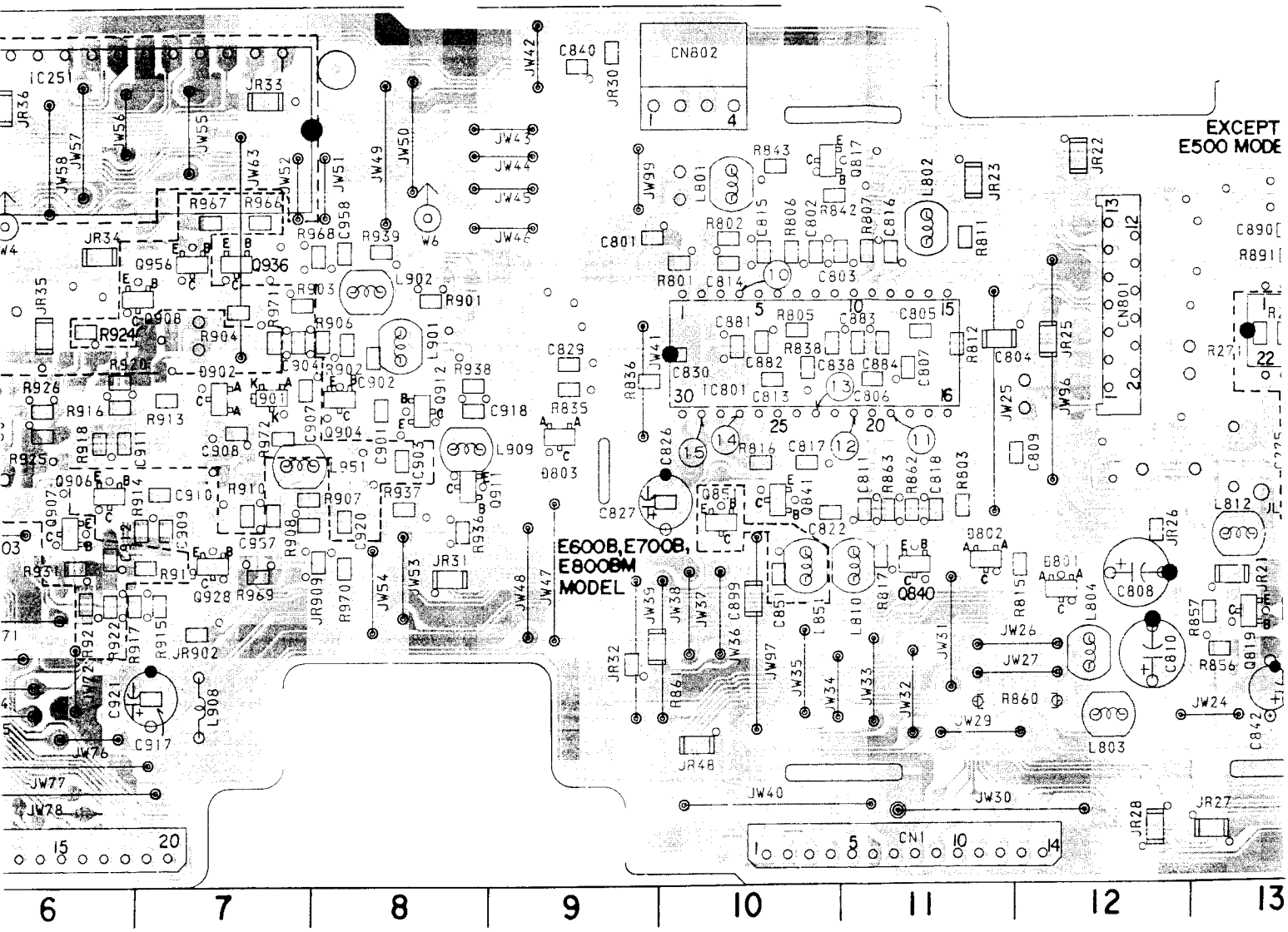


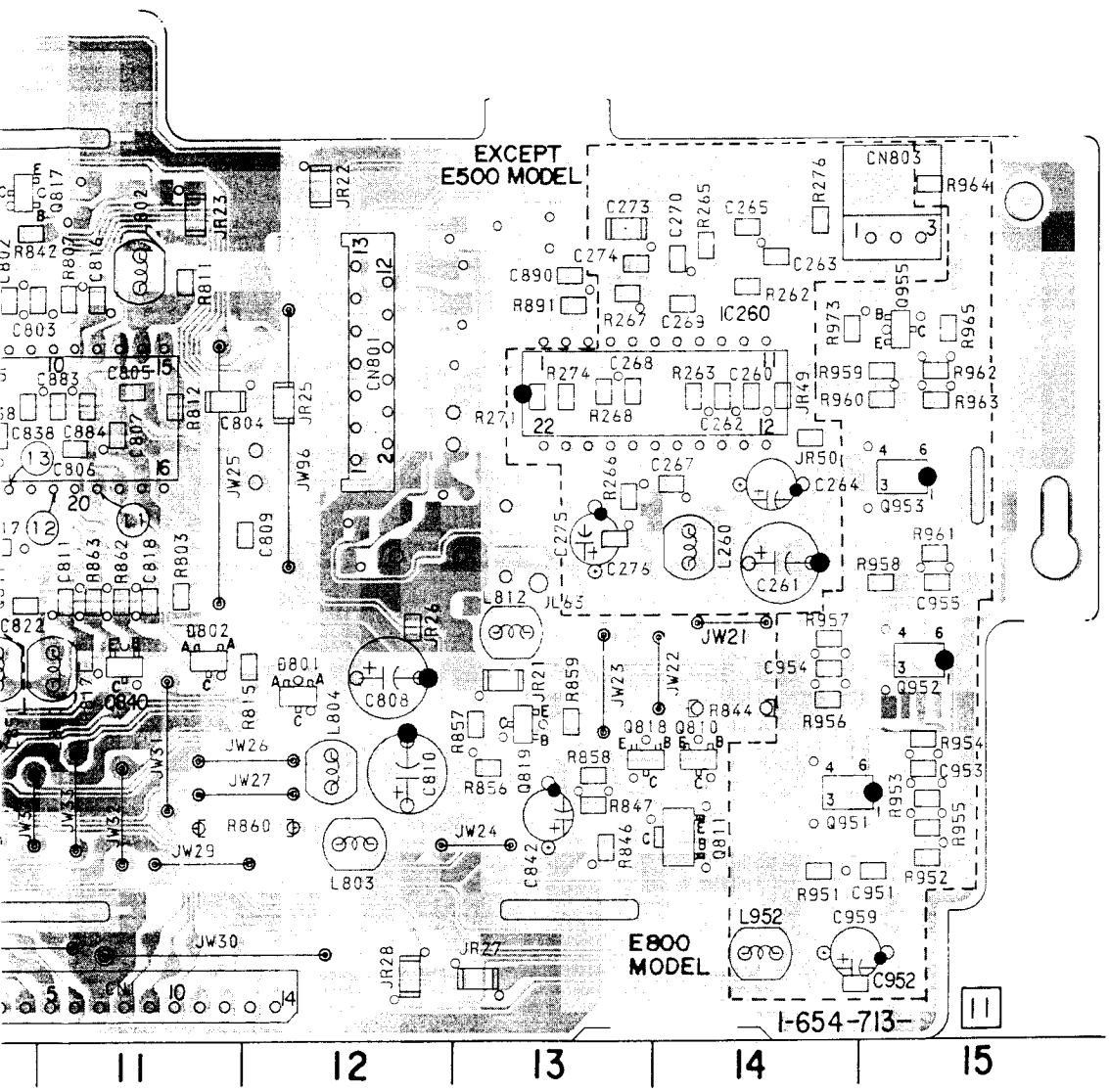
SS, HiFi AUDIO, HEAD AMP) PRINTED WIRING BOARD
: 2,000 series —

RD






EXCEPT
E500 MODE
E600B,E700B,
E800BM
MODEL
CN802
CN801
CN1
IC251
IC801
L902
L901
L909
L908
L812
L804
L803
L802
L801
6
7
8
9
10
11
12
13

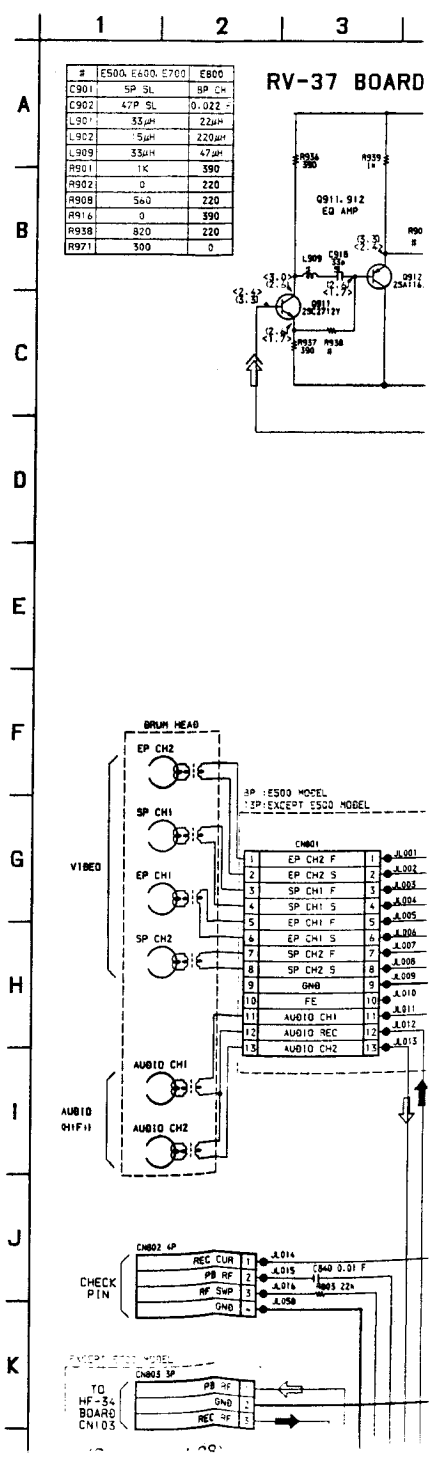


RV-37 BOARD

CN001	E-5
CN002	E-5
CN801	B-12
CN802	A-10
CN803	B-15
D001	C-4
D801	C-12
D802	C-12
D803	C-9
D901	C-7
D902	C-7
IC001	B-3
IC201	D-2
IC251	A-6
IC260	B-14
IC801	B-10
Q002	D-4
Q005	B-3
Q006	B-3
Q007	B-3
Q008	C-3
Q009	C-3
Q018	E-2
Q027	D-1
Q033	B-2
Q034	B-2
Q035	B-2
Q201	E-2
Q801	E-2
Q851	C-10
Q810	D-14
Q811	D-14
Q817	A-10
Q818	D-13
Q819	D-13
Q840	C-11
Q841	C-10
Q851	C-10
Q904	C-8
Q906	C-6
Q907	C-6
Q908	B-7
Q909	C-5
Q911	C-9
Q912	C-8
Q928	D-7
Q951	D-14
Q952	C-15
Q953	C-15
Q955	B-15
Q956	B-7

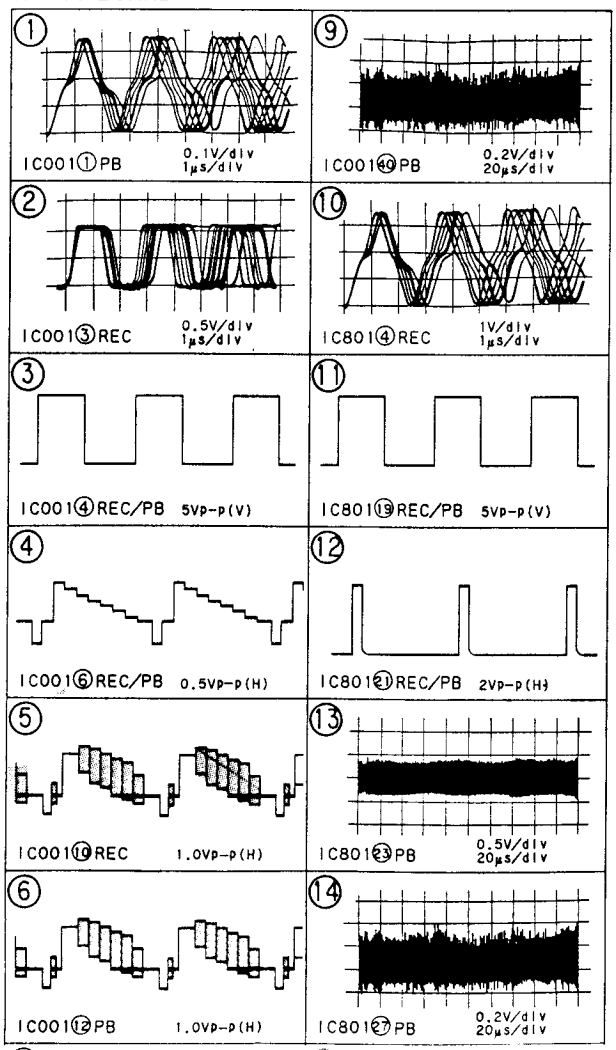
RV-37 (Y/C VIDEO PROCESS, HiFi Al

— Ref. No. RV-37 BOARD : 2,000 seri



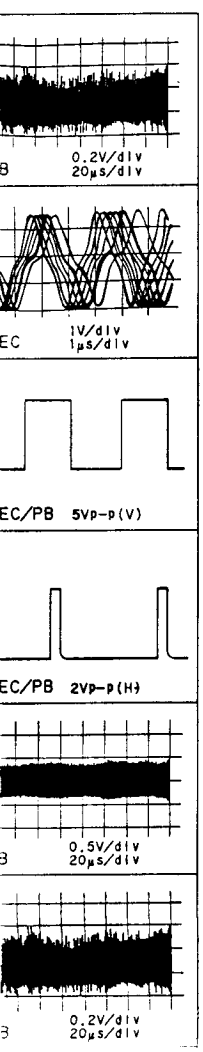
#	E500, E600, E700	E800
C901	SP SL	SP CH
C902	47P SL	0.022 -
L901	33μH	22μH
L902	15μH	220μH
L909	33μH	47μH
R901	1K	390
R902	0	220
R908	560	220
R916	0	390
R938	820	220
R971	300	0

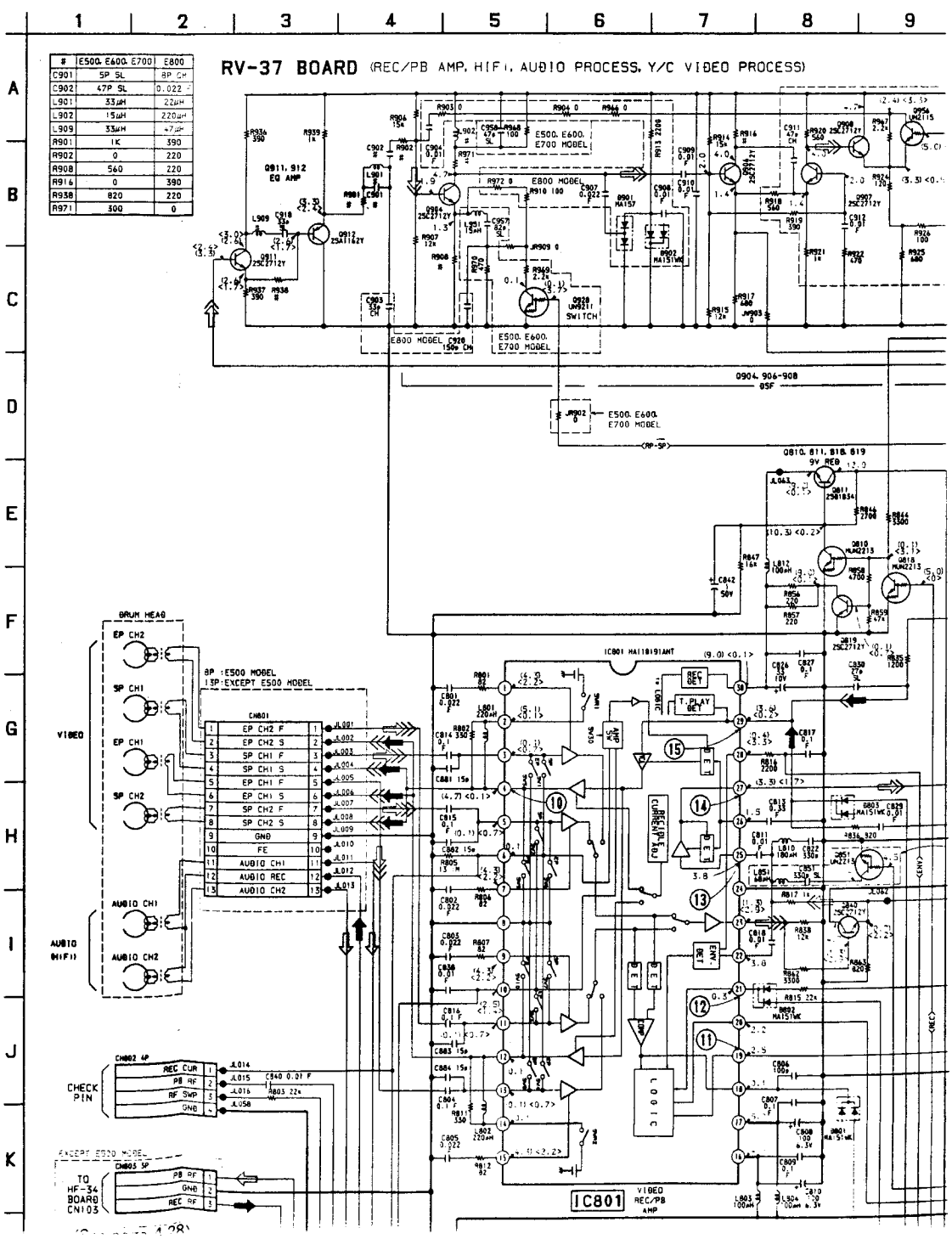
RV-37 BOARD


① IC001① PB 0.1V/div 1μs/div
② IC001③ REC 0.5V/div 1μs/div
③ IC001④ REC/PB 5Vp-p(V)
④ IC001⑥ REC/PB 0.5Vp-p(H)
⑤ IC001⑩ REC 1.0Vp-p(H)
⑥ IC001⑫ PB 1.0Vp-p(H)
⑨ IC001⑩ PB 0.2V/div 20μs/div
⑩ IC801④ REC 1V/div 1μs/div
⑪ IC801⑲ REC/PB 5Vp-p(V)
⑫ IC801㉑ REC/PB 2Vp-p(H)
⑬ IC801㉓ PB 0.5V/div 20μs/div
⑭ IC801㉗ PB 0.2V/div 20μs/div

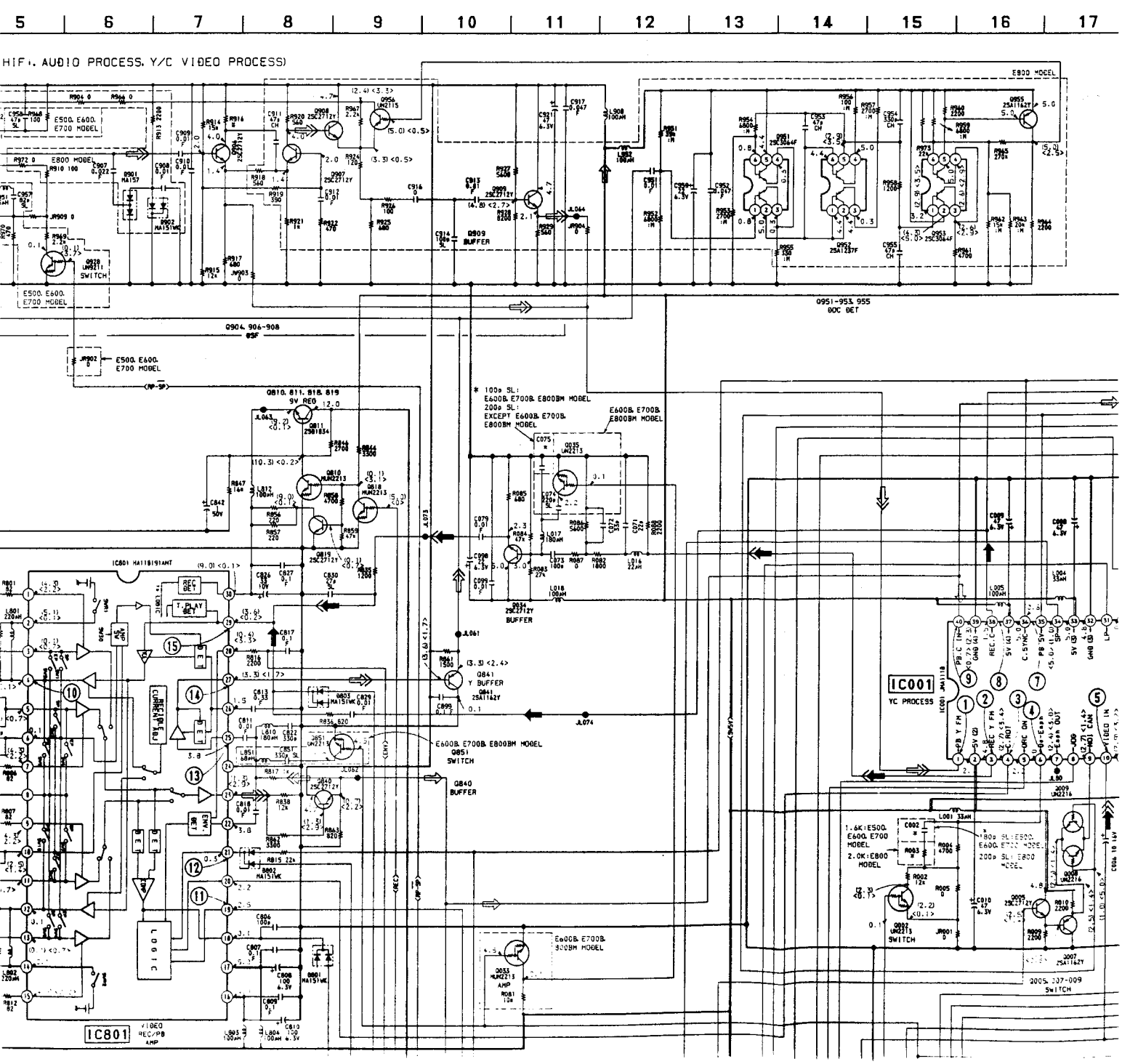
RV-37 (Y/C VIDEO PROCESS, HiFi AUDIO, HEAD AMP) SCHEMATIC DIAGRAM

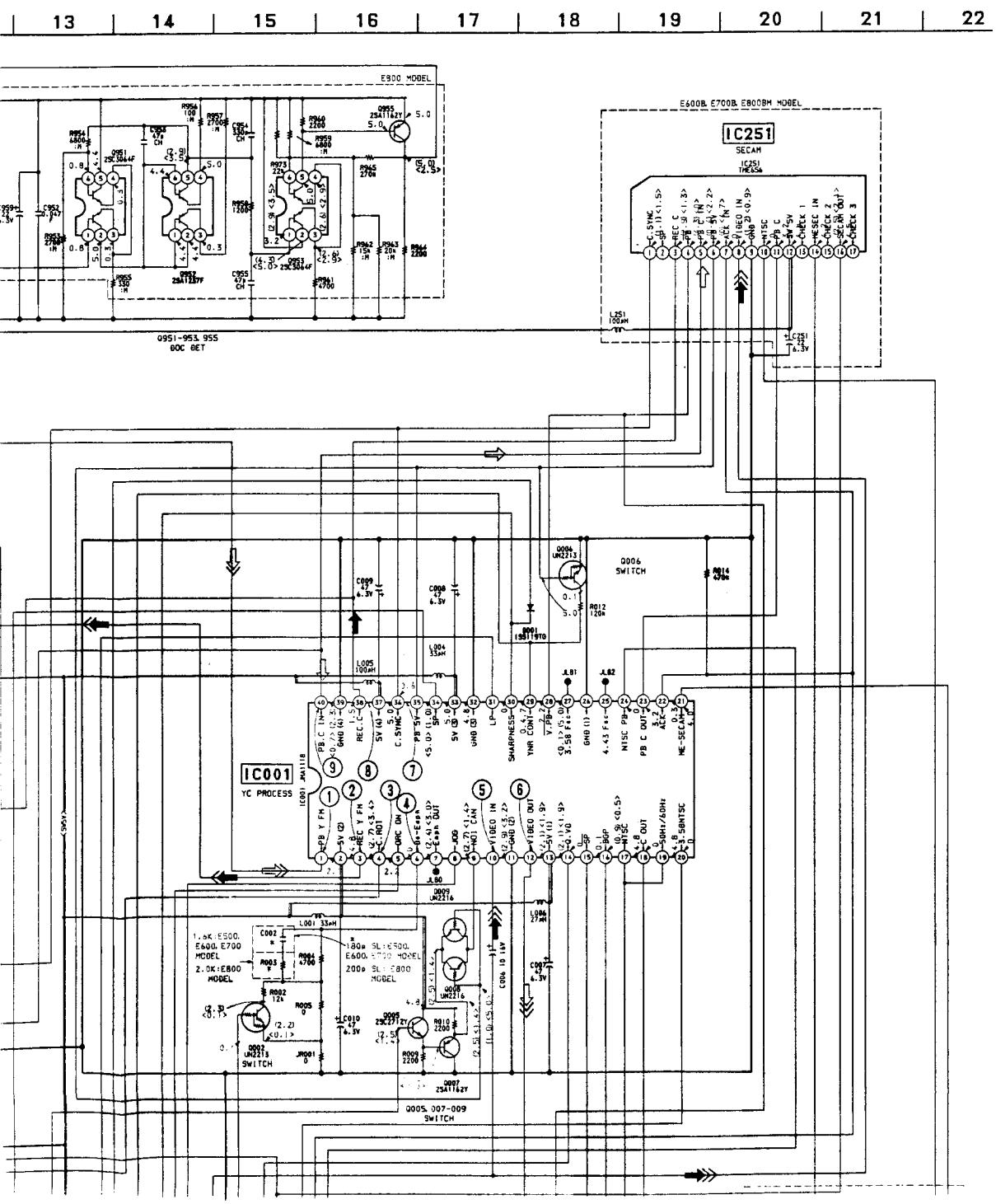
— Ref. No. RV-37 BOARD : 2,000 series —



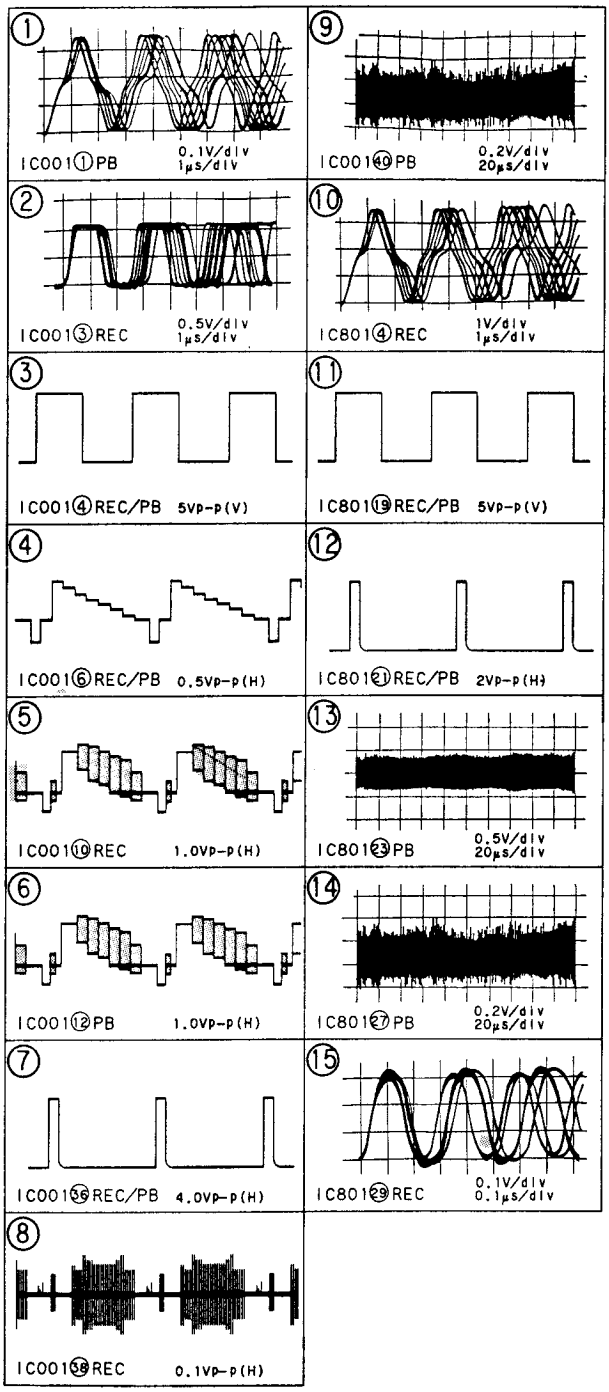


AMP) SCHEMATIC DIAGRAM



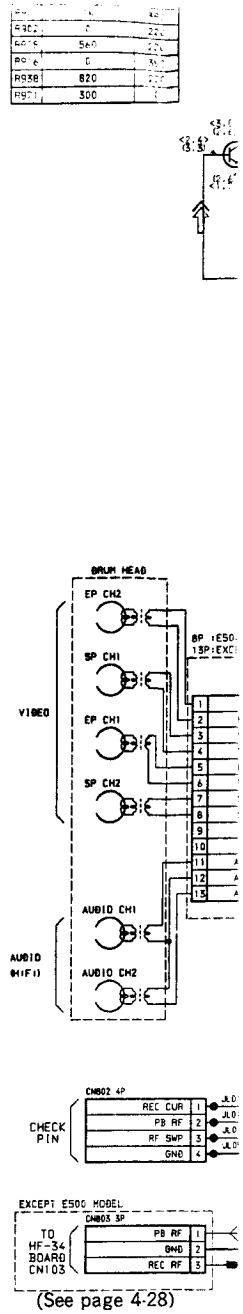

13
14
15
16
17
18
19
20
21
22
E800 MODEL
E600, E700, E800M MODEL
IC251
SECAM
IC001
YC PROCESS
Q006
SWITCH
Q005, 007-009
SWITCH
0951-953, 955
BOC BET

RV-37 BOARD

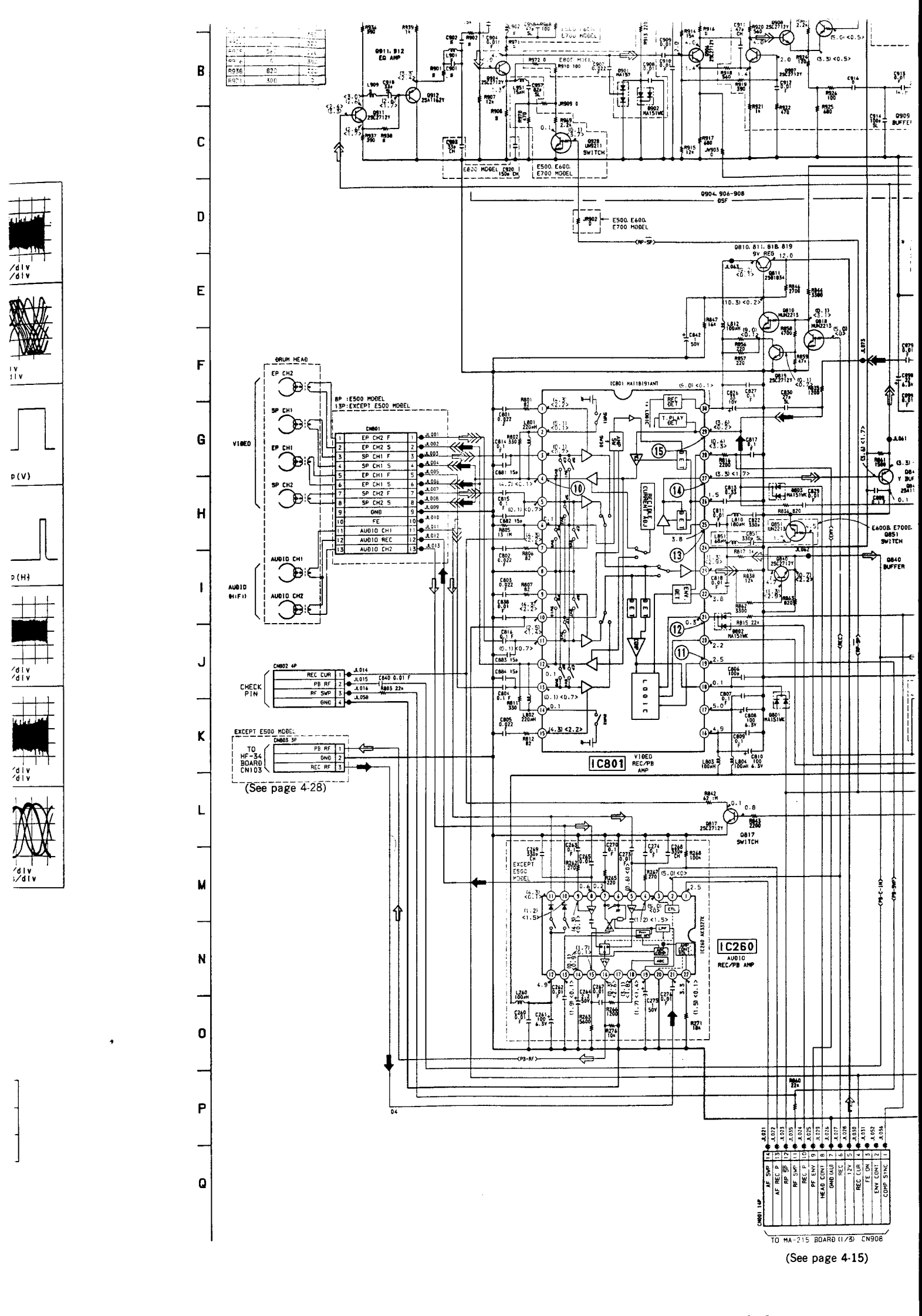

① IC001① PB 0.1V/div 1μs/div
⑨ IC001⑩ PB 0.2V/div 20μs/div
② IC001③ REC 0.5V/div 1μs/div
⑩ IC801④ REC 1V/div 1μs/div
③ IC001④ REC/PB 5Vp-p(V)
⑪ IC801⑲ REC/PB 5Vp-p(V)
④ IC001⑥ REC/PB 0.5Vp-p(H)
⑫ IC801㉑ REC/PB 2Vp-p(H)
⑤ IC001⑩ REC 1.0Vp-p(H)
⑬ IC801㉓ PB 0.5V/div 20μs/div
⑥ IC001⑫ PB 1.0Vp-p(H)
⑭ IC801㉗ PB 0.2V/div 20μs/div
⑦ IC001㉖ REC/PB 4.0Vp-p(H)
⑮ IC801㉙ REC 0.1V/div 0.1μs/div
⑧ IC001㉘ REC 0.1Vp-p(H)

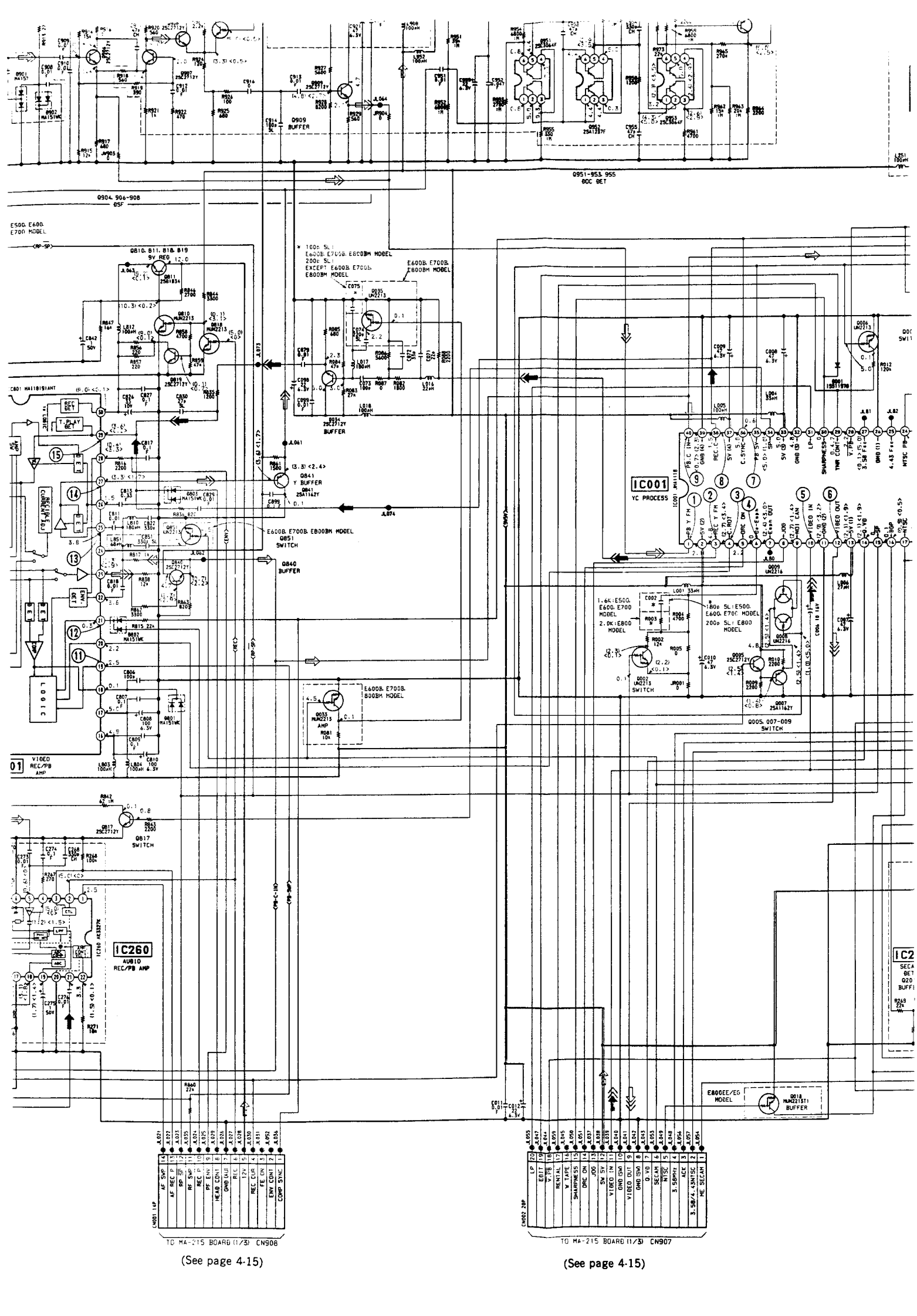
• **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC	➡	➡	➡	➡
PB	⇨	⇨	⇨	⇨



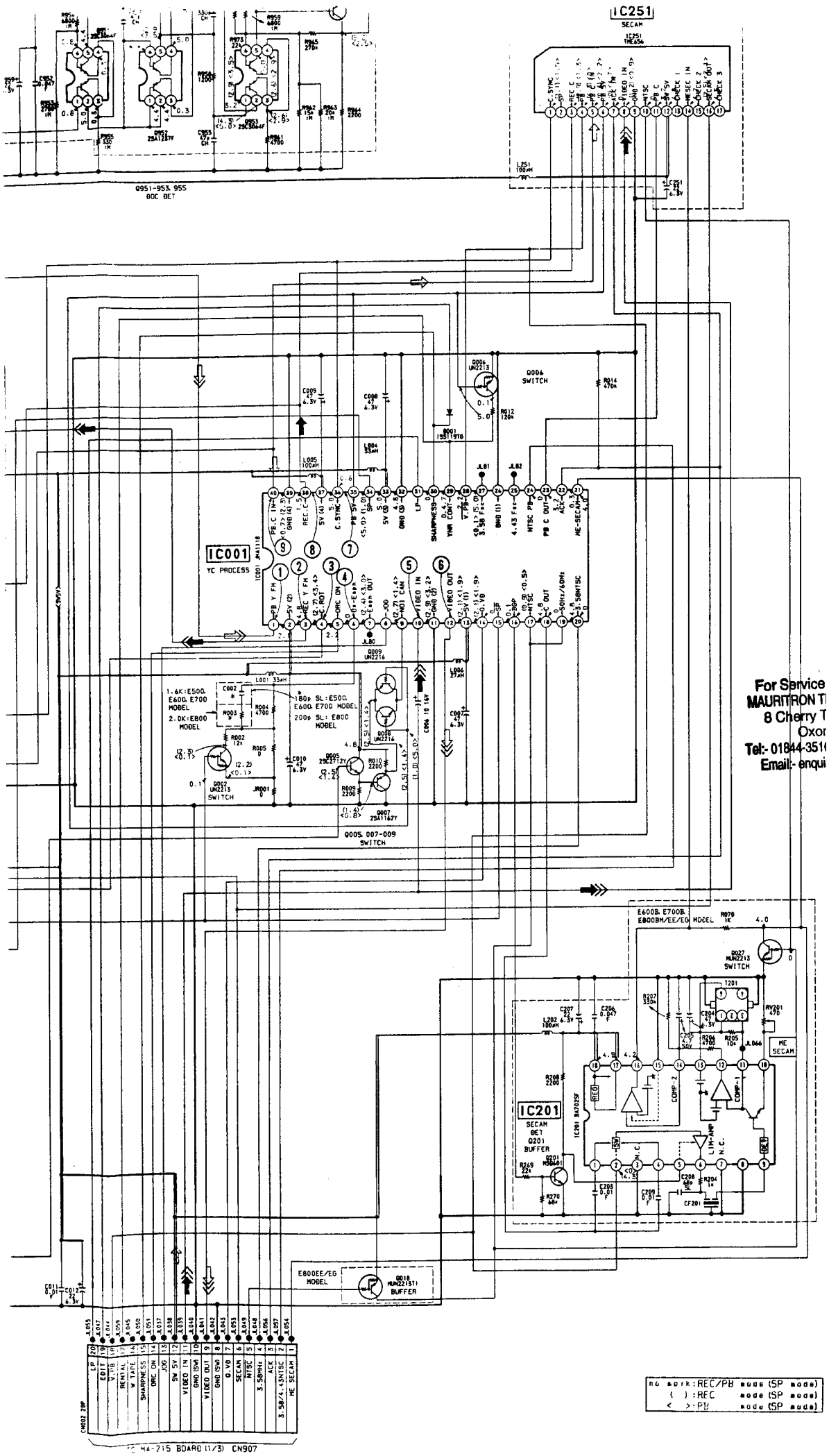
(See page 4-28)


Q911, 912
EQ AMP
E630 MODEL
E500, E600,
E700 MODEL
SWITCH
Q904, 906-908
QSF
E500, E600,
E700 MODEL
Q810, 811, 818, 819
9V REG
DRUM HEAD
EP CH2
SP CH1
EP CH1
SP CH2
AUDIO CH1
AUDIO CH2
VIDEO
AUDIO
8P :E500 MODEL
13P:EXCEPT E500 MODEL
CN801
EP CH2 F
EP CH2 S
SP CH1 F
SP CH1 S
EP CH1 F
EP CH1 S
SP CH2 F
SP CH2 S
GND
FE
AUDIO CH1
AUDIO REC
AUDIO CH2
IC801 MA1181ANT
REC DET
T. PLAY DET
CLOCK
LOGIC
IC801
VIDEO
REC/PB
AMP
Q851
SWITCH
Q840
BUFFER
CN802 4P
CHECK
PIN
REC CUR
PB RF
RF SWP
GND
C840 0.01 F
R803 22k
EXCEPT E500 MODEL
CN803 3P
TO
HC-34
BOARD
CN103
PB RF
GND
REC RF
(See page 4-28)
Q817
SW1TCH
EXCEPT
E500
MODEL
IC260
AUDIO
REC/PB AMP
IC260 AK5377E
(PB-RF)
CN901 16P
AF SWP
AF REC P
RP SW
RF SWP
REC F
PB ENV
HEAD CONT
GND (AU)
REC
12V
REC CUR
FE ON
ENV CONT
COMP SYNC
TO MA-215 BOARD (1/3) CN908
(See page 4-15)



(See page 4-15)

(See page 4-15)

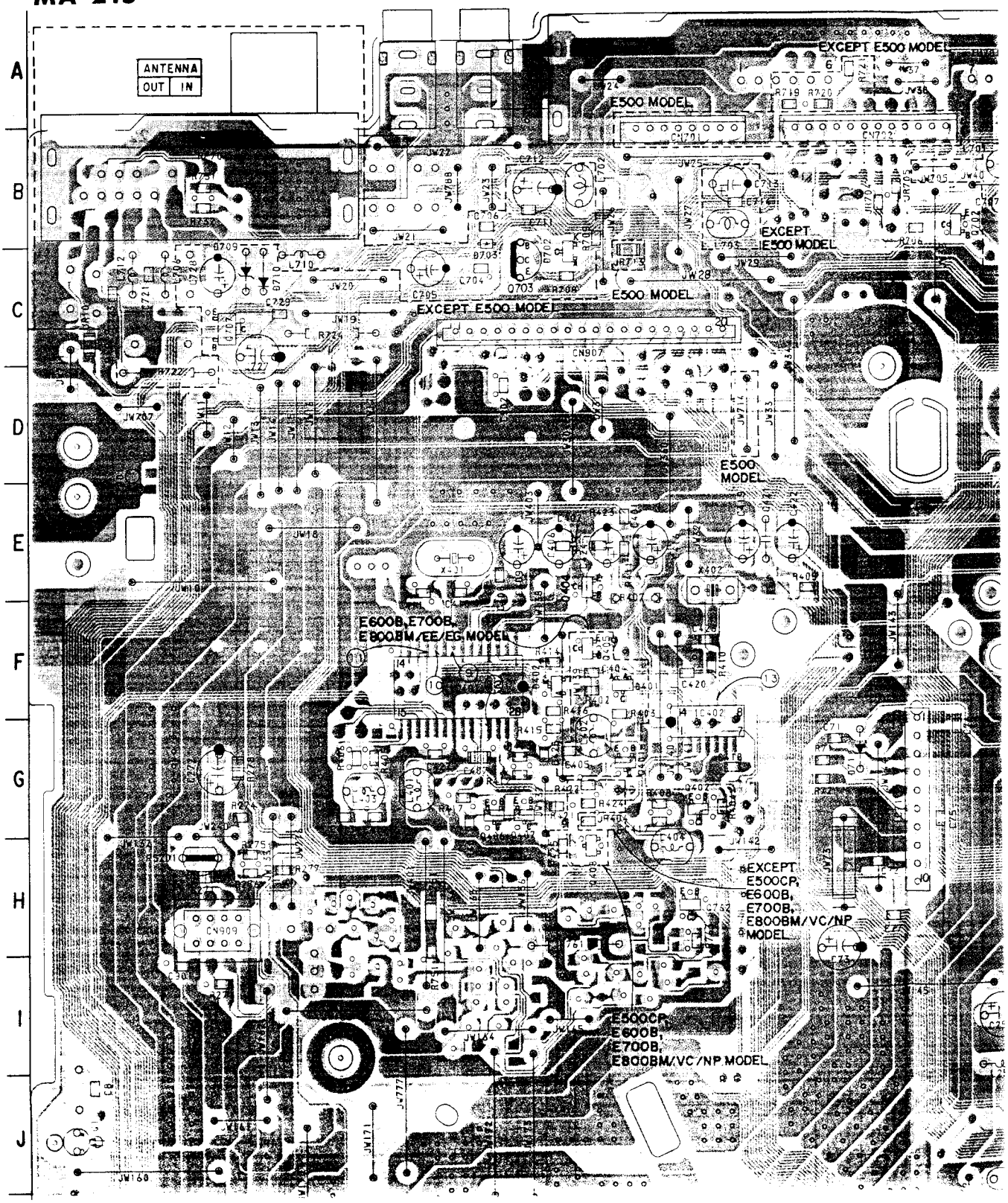


For Service
MAURITRON T
8 Cherry T
Oxor
Tel:- 01844-351
Email:- enqui

VIDEO PROCESS

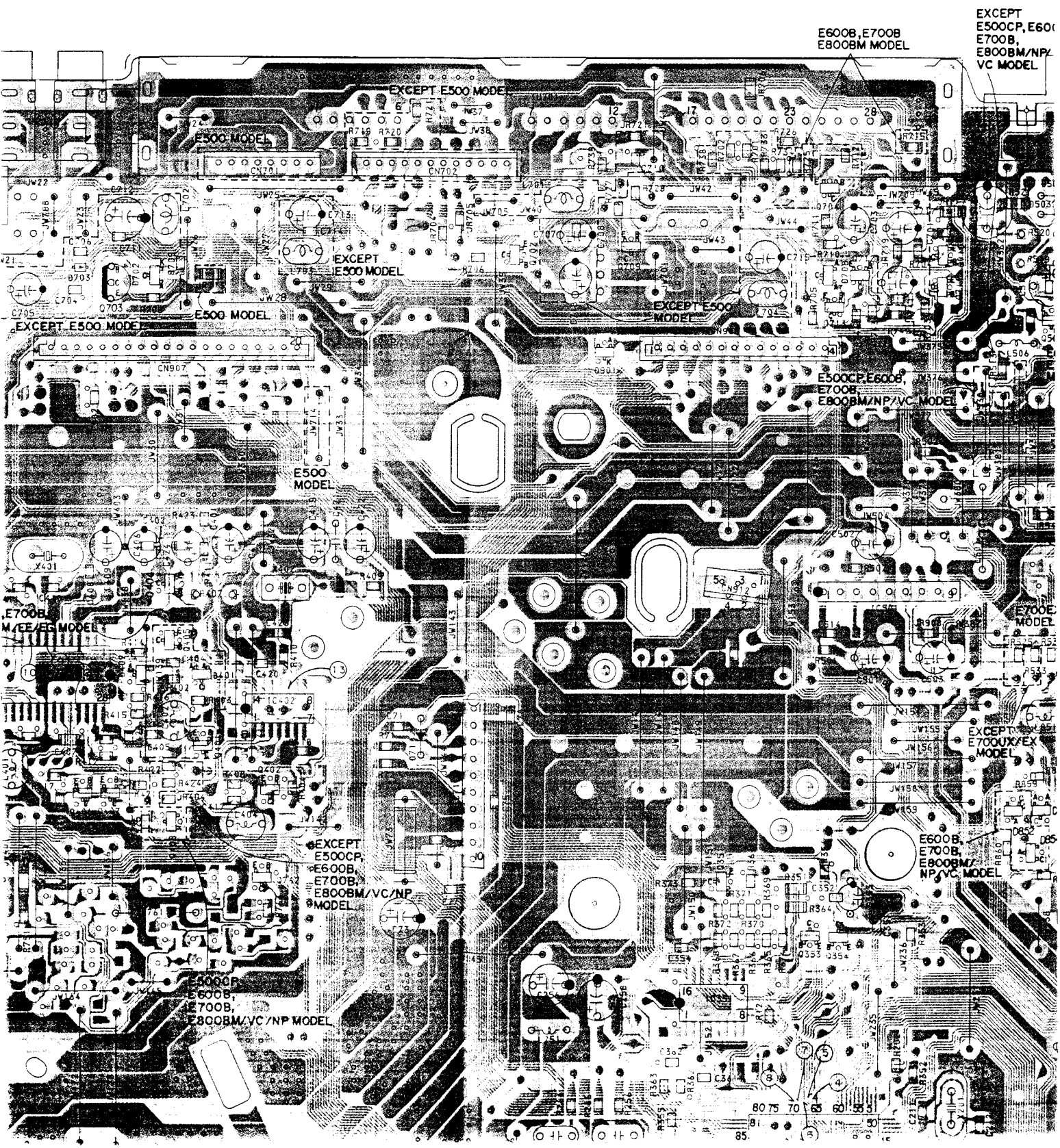
MA-215 (SERVO/SYSTEM CONTROL), DC-58 (RELAY) PRINTED WIRING BOARD
— Ref. No. MA-215 BOARD : 1,000 series, DC-58 BOARD : 4,000 series —

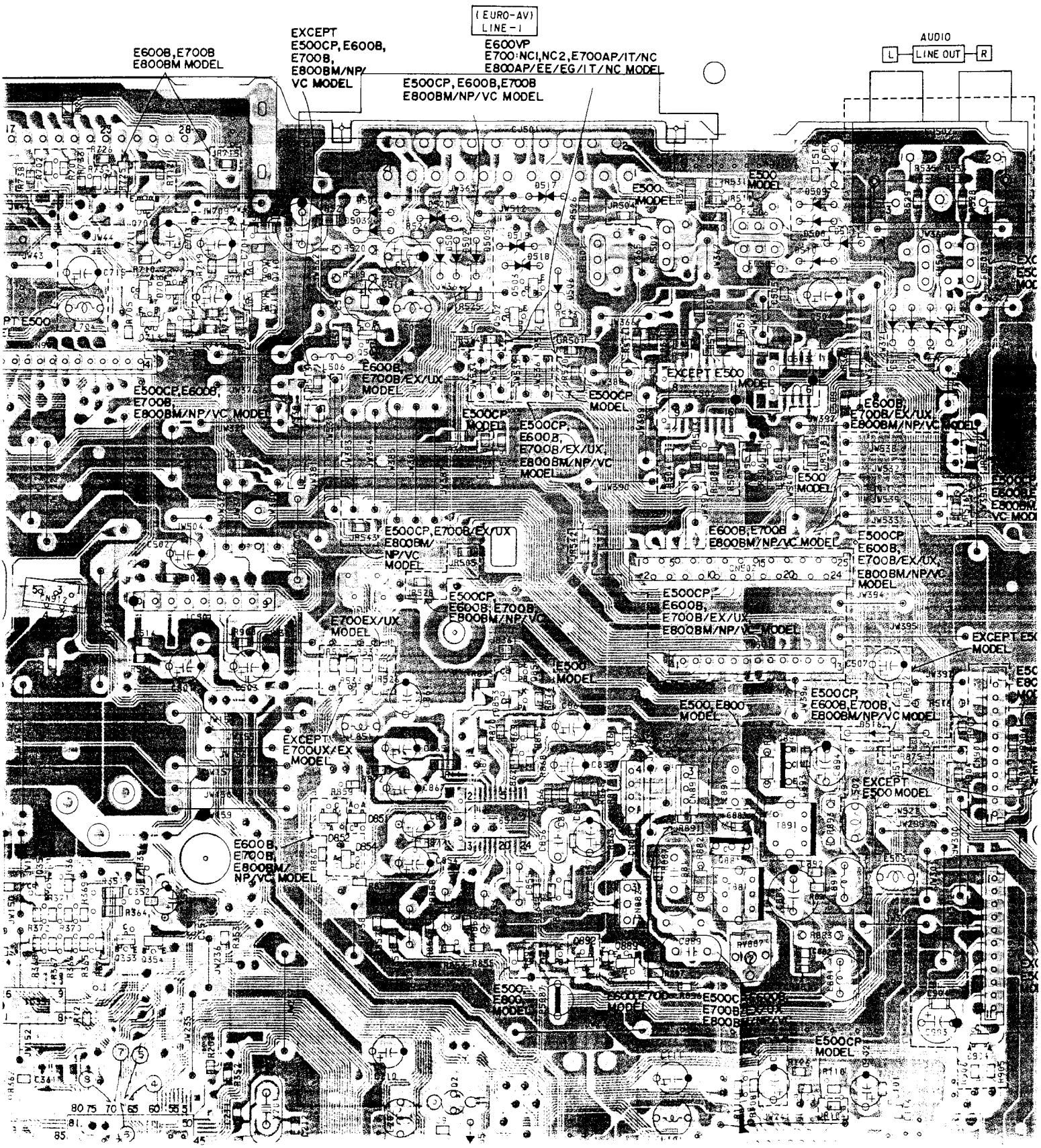
MA-215



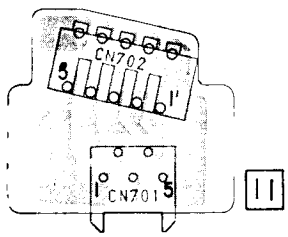
58 (RELAY) PRINTED WIRING BOARD

DC-58 BOARD : 4,000 series —

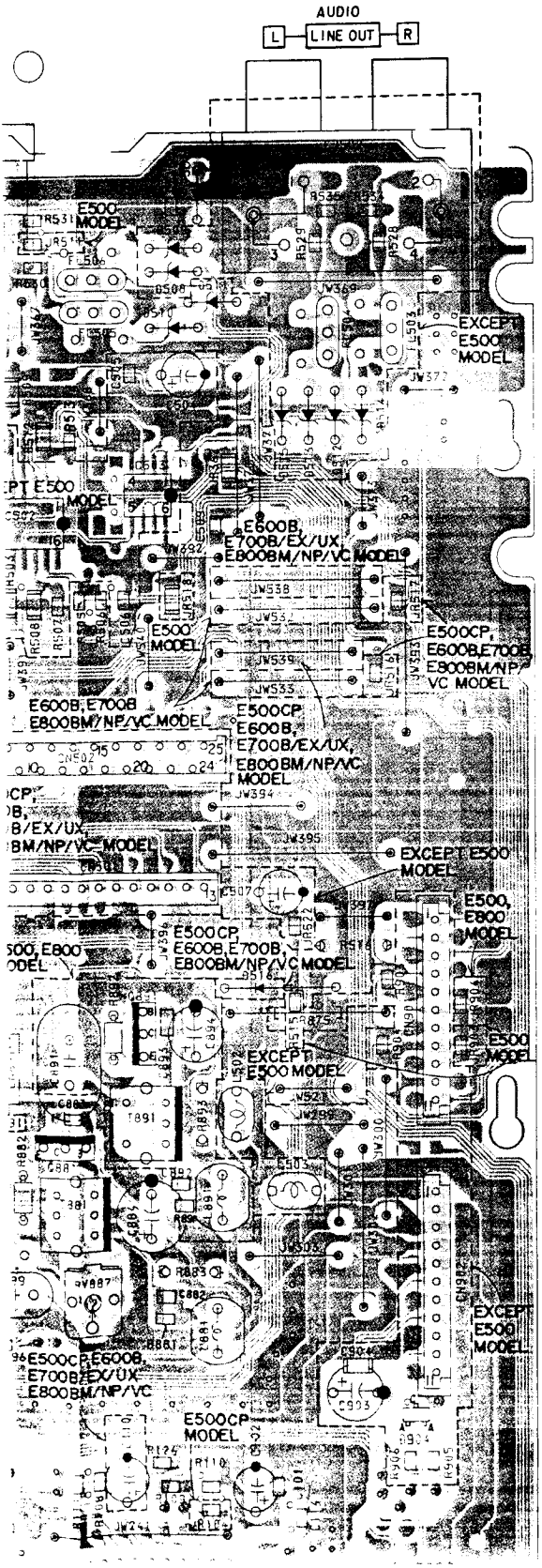



(EURO-AV)
LINE-1
AUDIO
L
LINE OUT
R
E600B,E700B
E800BM MODEL
EXCEPT
E500CP,E600B,
E700B,
E800BM/NP/
VC MODEL
E600VP
E700:NC1,NC2,E700AP/IT/NC
E800AP/EE/EG/IT/NC MODEL
E500CP,E600B,E700B
E800BM/NP/VC MODEL
E500 MODEL
E600B,
E700B/EX/UX
MODEL
E500CP,E600B,
E700B,
E800BM/NP/VC MODEL
E500CP
MODEL
E500CP,
E600B,
E700B/EX/UX,
E800BM/NP/VC
MODEL
EXCEPT E500
MODEL
E600B,
E700B/EX/UX,
E800BM/NP/VC MODEL
E500CP,E700B/EX/UX
E800BM/
NP/VC
MODEL
E600B,E700B
E800BM/NP/VC MODEL
E500CP,
E600B,
E700B/EX/UX,
E800BM/NP/VC
MODEL
E700EX/UX
MODEL
E500CP,
E600B,E700B
E800BM/NP/VC
E500CP,
E600B,
E700B/EX/UX,
E800BM/NP/VC MODEL
EXCEPT E5
MODEL
E500
MODEL
E500,E800
MODEL
E500CP,
E600B,E700B,
E800BM/NP/VC MODEL
EXCEPT
E700UX/EX
MODEL
EXCEPT
E500 MODEL
E600B,
E700B,
E800BM/
NP/VC MODEL
E500,
E800
MODEL
E500CP
MODEL
E500CP
MODEL

DC-58 BOARD



1-654-718-



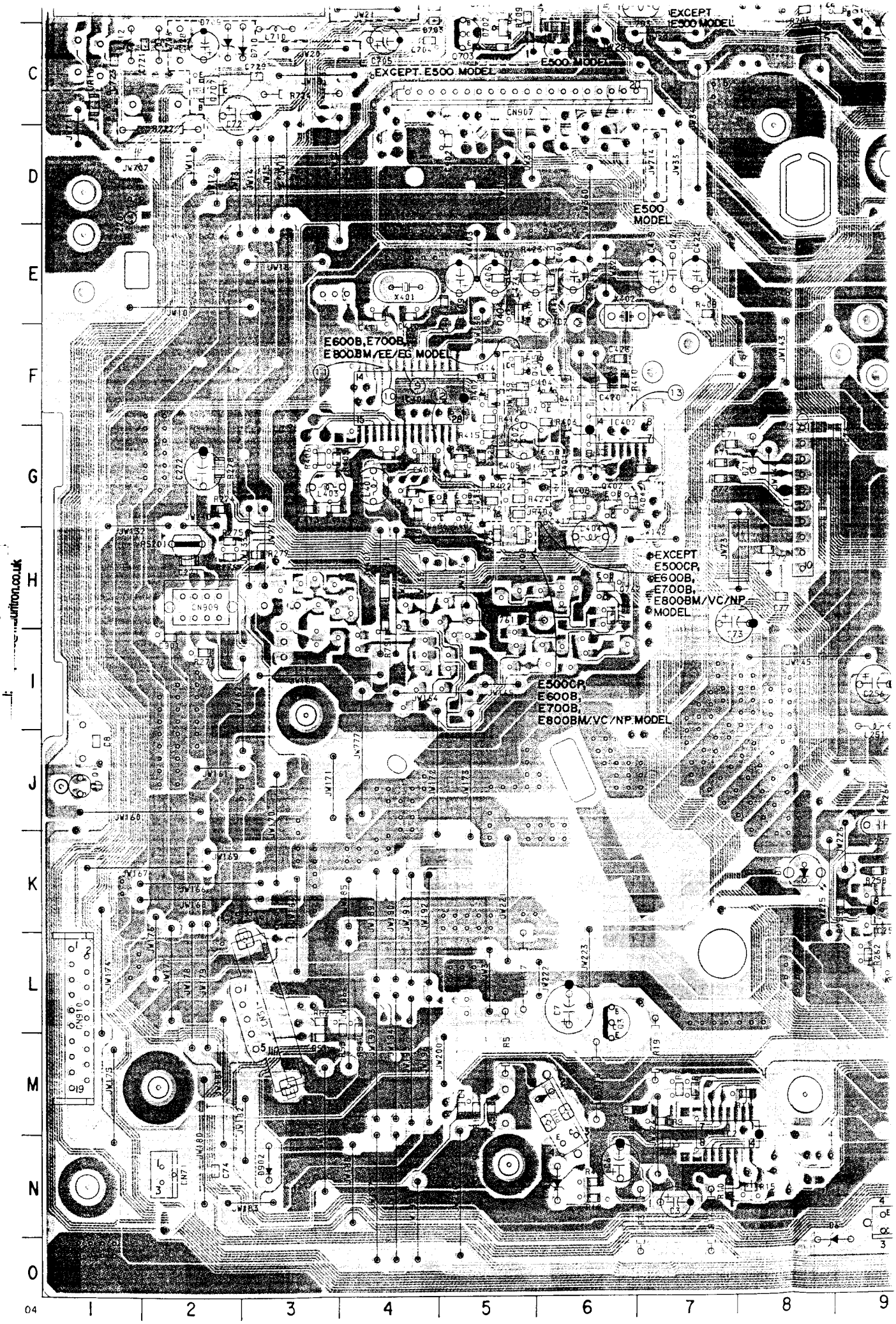
MA-215 BOARD

CN051	L-3	Q502	C-15
CN071	N-2	Q702	B-8
CN101	L-18	Q703	C-5
CN501	F-17	Q704	B-11
CN502	E-17	Q707	C-2
CN701	A-6	Q709	B-9
CN702	A-8	Q710	C-12
CN881	G-16	Q711	C-12
CN882	H-16	Q712	C-11
CN891	G-17	Q713	C-11
CN901	G-20	Q851	F-15
CN902	H-20	Q881	H-17
CN903	L-20	Q882	I-15
CN904	O-19	Q889	I-16
CN905	O-17	Q891	G-17
CN907	C-6	Q892	I-15
CN908	C-11		
CN909	H-2		
CN910	L-1		
CN912	E-11		

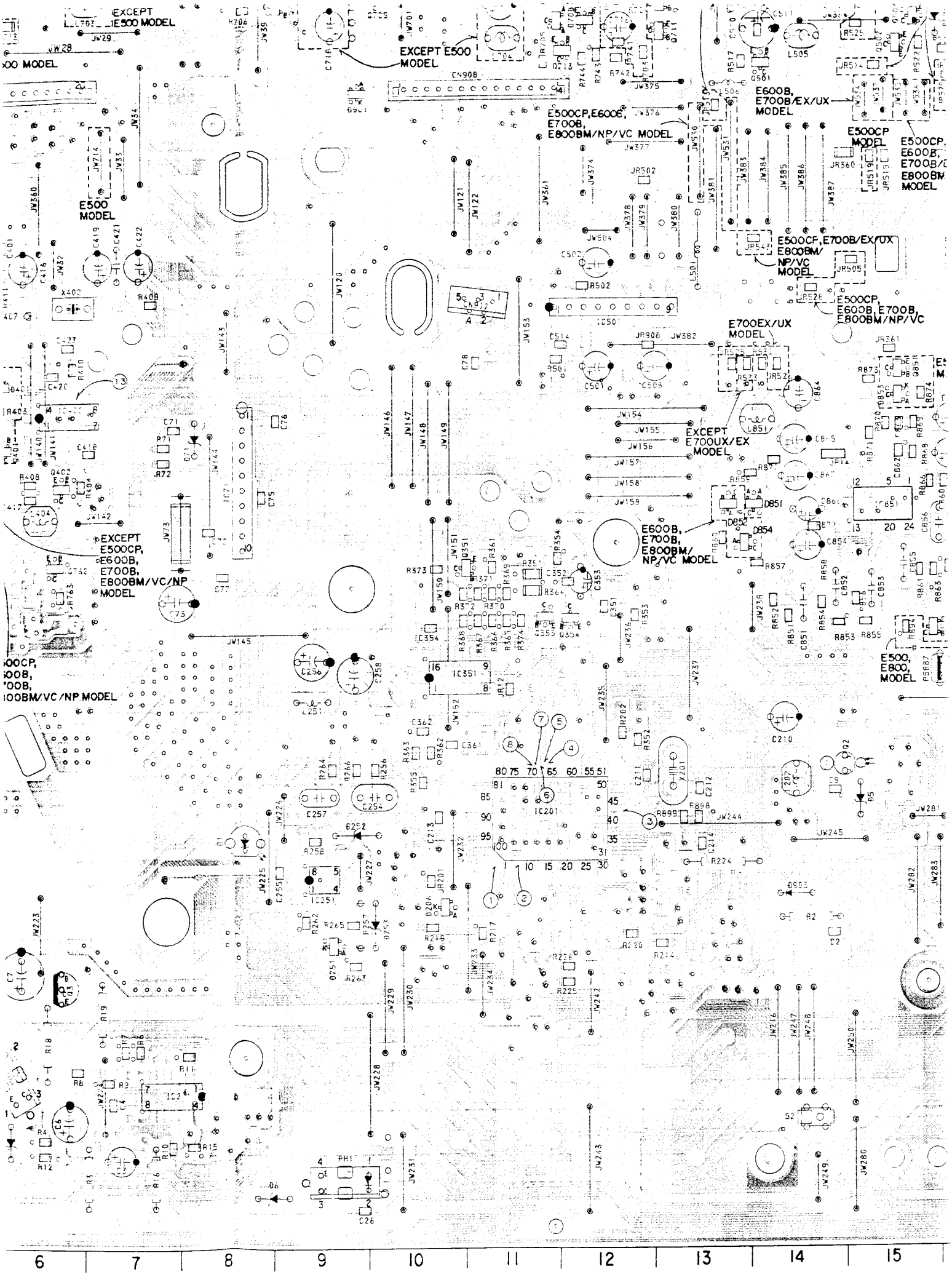
D001	K-8
D006	O-8
D007	N-6
D071	G-8
D206	L-10
D251	L-9
D252	K-9
D253	L-10
D401	F-5
D402	F-5
D501	B-15
D502	B-15
D503	B-14
D504	B-14
D505	B-15
D506	B-16
D507	A-18
D508	B-18
D509	B-18
D510	B-18
D511	B-18
D512	C-19
D513	C-19
D514	C-19
D515	C-19
D516	F-18
D517	B-15
D518	B-15
D519	B-15
D520	B-14
D702	C-4
D708	C-11
D709	C-2
D710	C-2
D851	H-13
D852	H-13
D853	F-15
D854	H-13
D901	C-10
D902	N-3
D903	K-14
D904	J-19

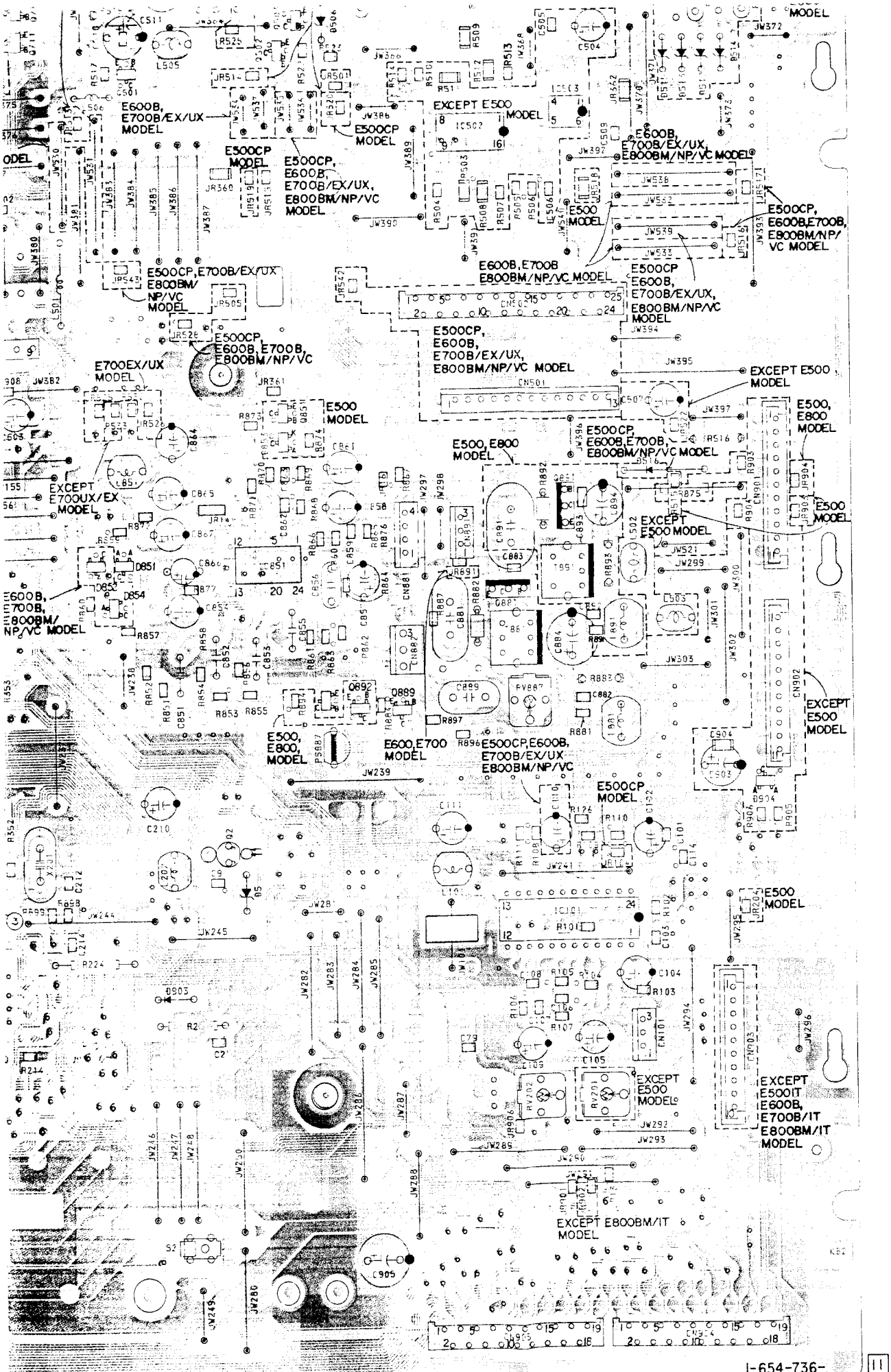
IC002	N-7
IC071	H-9
IC101	J-17
IC201	K-11
IC251	K-9
IC351	J-10
IC401	F-5
IC402	G-6
IC501	F-13
IC502	D-17
IC503	D-18
IC851	H-15

Q001	J-1
Q002	J-14
Q003	M-3
Q351	H-11
Q353	I-12
Q354	I-12



SERVO/SYSCON RELAY


EXCEPT E500 MODEL
E500 MODEL
E500CP,E600B, E700B, E800BM/NP/VC MODEL
E600B, E700B/EX/UX MODEL
E500CP MODEL
E500CP, E600B, E700B/E E800BM MODEL
E500CP,E700B/EX/UX E800BM/ NP/VC MODEL
E500CP, E600B, E700B, E800BM/NP/VC
E700EX/UX MODEL
EXCEPT E700UX/EX MODEL
E600B, E700B, E800BM/ NP/VC MODEL
EXCEPT E500CP, E600B, E700B, E800BM/VC/NP MODEL
E500, E800, MODEL
IC201
IC351
IC251
IC2
CN908
80 75 70 65 60 55 51
1 10 15 20 25 30
6 7 8 9 10 11 12 13 14 15



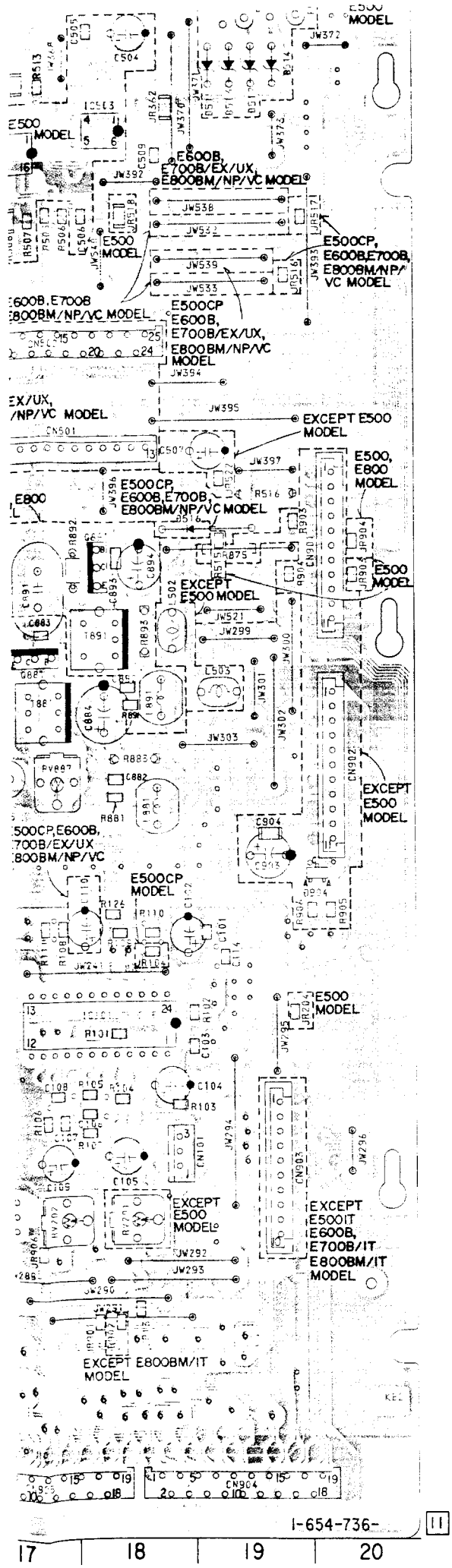
CN908	C-11
CN909	H-2
CN910	L-1
CN912	E-11
D001	K-8
D006	O-8
D007	N-6
D071	G-8
D206	L-10
D251	L-9
D252	K-9
D253	L-10
D401	F-5
D402	F-5
D501	B-15
D502	B-15
D503	B-14
D504	B-14
D505	B-15
D506	B-16
D507	A-18
D508	B-18
D509	B-18
D510	B-18
D511	B-18
D512	C-19
D513	C-19
D514	C-19
D515	C-19
D516	F-18
D517	B-15
D518	B-15
D519	B-15
D520	B-14
D702	C-4
D708	C-11
D709	C-2
D710	C-2
D851	H-13
D852	H-13
D853	F-15
D854	H-13
D901	C-10
D902	N-3
D903	K-14
D904	J-19
IC002	N-7
IC071	H-9
IC101	J-17
IC201	K-11
IC251	K-9
IC351	J-10
IC401	F-5
IC402	G-6
IC501	F-13
IC502	D-17
IC503	D-18
IC851	H-15
Q001	J-1
Q002	J-14
Q003	M-3
Q351	H-11
Q353	I-12
Q354	I-12
Q401	G-6
Q402	G-6
Q404	E-6
Q405	F-5
Q406	G-4
Q407	G-5
Q408	H-5
Q501	C-14

HF-34 (EX
(AUDIEO

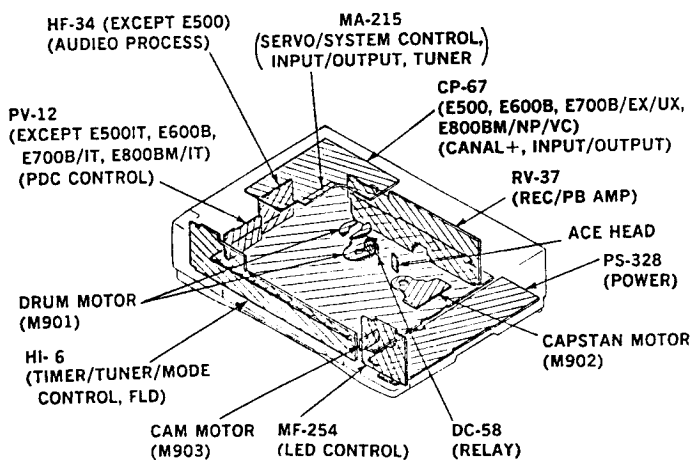
PV-12
(EXCEPT E50C
E700B/IT, EE
(PDC CONTR

DRUM MOTO
(M901)

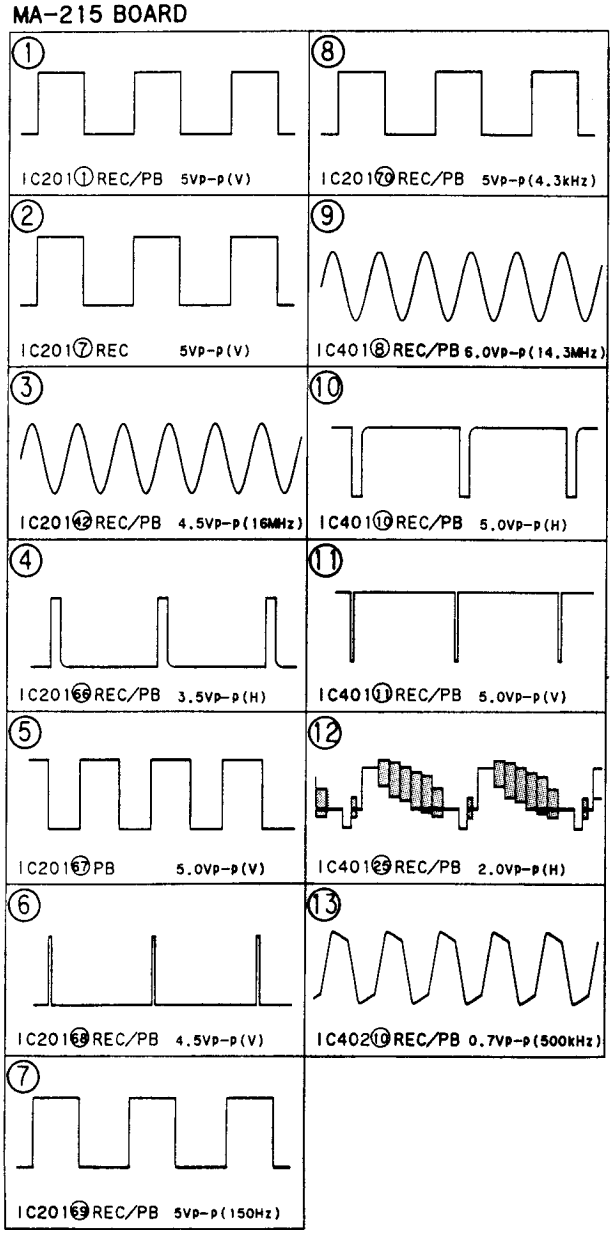
HI- 6
(TIMER/TUN
CONTROL,



CN907	C-6	Q892
CN908	C-11	
CN909	H-2	
CN910	L-1	
CN912	E-11	
D001	K-8	
D006	O-8	
D007	N-6	
D071	G-8	
D206	L-10	
D251	L-9	
D252	K-9	
D253	L-10	
D401	F-5	
D402	F-5	
D501	B-15	
D502	B-15	
D503	B-14	
D504	B-14	
D505	B-15	
D506	B-16	
D507	A-18	
D508	B-18	
D509	B-18	
D510	B-18	
D511	B-18	
D512	C-19	
D513	C-19	
D514	C-19	
D515	C-19	
D516	F-18	
D517	B-15	
D518	B-15	
D519	B-15	
D520	B-14	
D702	C-4	
D708	C-11	
D709	C-2	
D710	C-2	
D851	H-13	
D852	H-13	
D853	F-15	
D854	H-13	
D901	C-10	
D902	N-3	
D903	K-14	
D904	J-19	
IC002	N-7	
IC071	H-9	
IC101	J-17	
IC201	K-11	
IC251	K-9	
IC351	J-10	
IC401	F-5	
IC402	G-6	
IC501	F-13	
IC502	D-17	
IC503	D-18	
IC851	H-15	
Q001	J-1	
Q002	J-14	
Q003	M-3	
Q351	H-11	
Q353	I-12	
Q354	I-12	
Q401	G-6	
Q402	G-6	
Q404	E-6	
Q405	F-5	
Q406	G-4	
Q407	G-5	
Q408	H-5	
Q501	C-14	

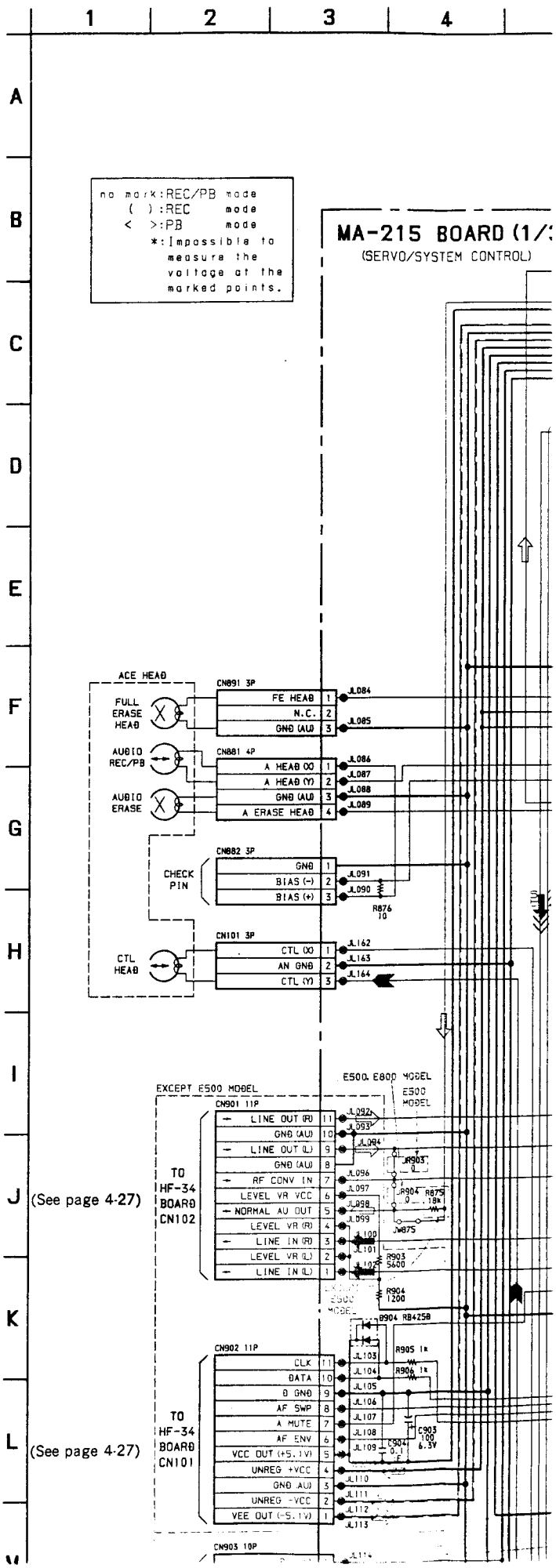


MA-215 BOARD


① IC201① REC/PB 5Vp-p(V)
② IC201⑦ REC 5Vp-p(V)
③ IC201⑫ REC/PB 4.5Vp-p(16MHz)
④ IC201⑯ REC/PB 3.5Vp-p(H)
⑤ IC201⑰ PB 5.0Vp-p(V)
⑥ IC201⑱ REC/PB 4.5Vp-p(V)
⑦ IC201⑲ REC/PB 5Vp-p(150Hz)
⑧ IC201⑳ REC/PB 5Vp-p(4.3kHz)
⑨ IC401⑧ REC/PB 6.0Vp-p(14.3MHz)
⑩ IC401⑩ REC/PB 5.0Vp-p(H)
⑪ IC401⑪ REC/PB 5.0Vp-p(V)
⑫ IC401㉕ REC/PB 2.0Vp-p(H)
⑬ IC402⑩ REC/PB 0.7Vp-p(500kHz)

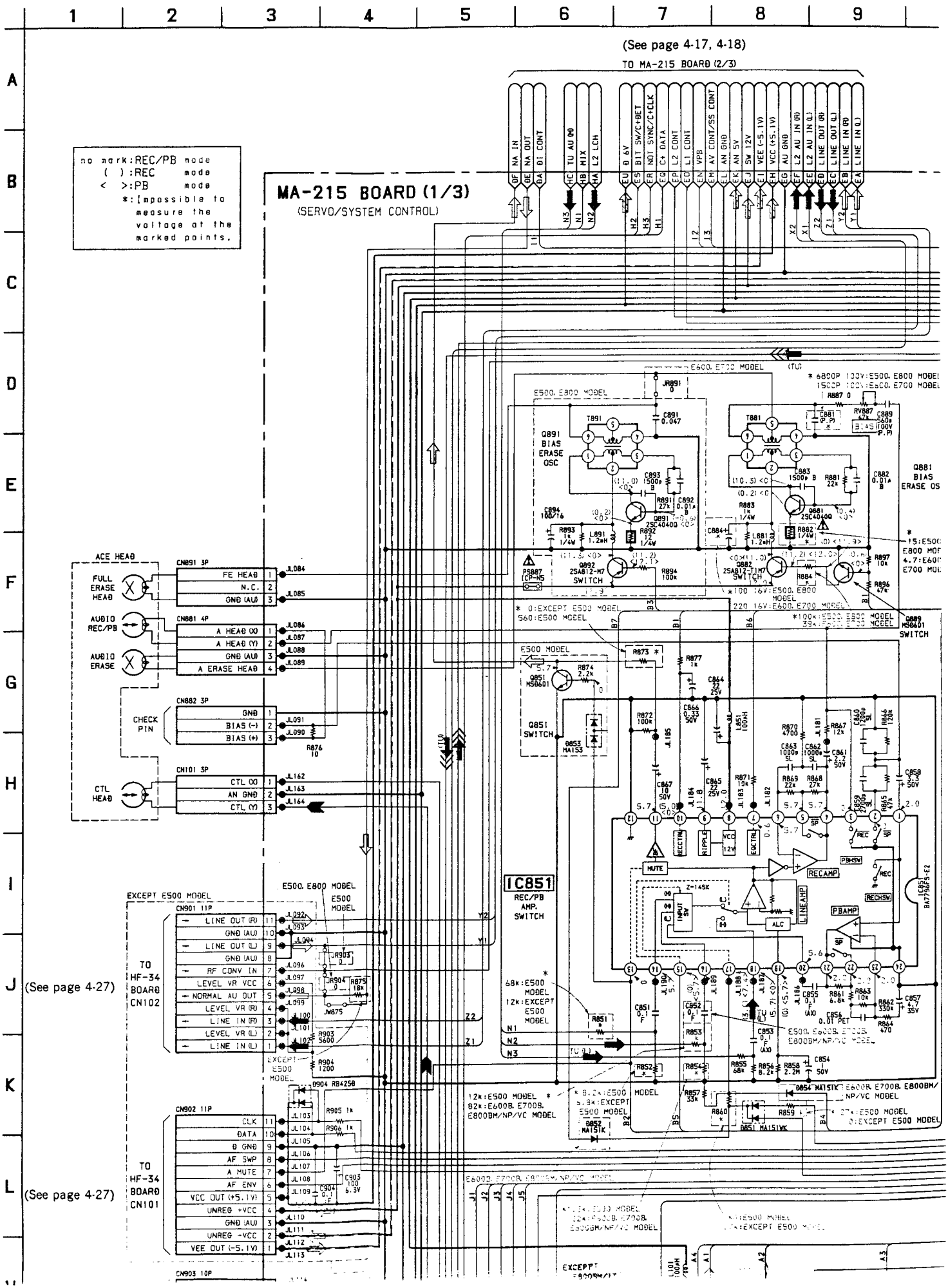
MA-215 (SERVO/SYSTEM CONTROL), DC-58 (RELAY) SCI

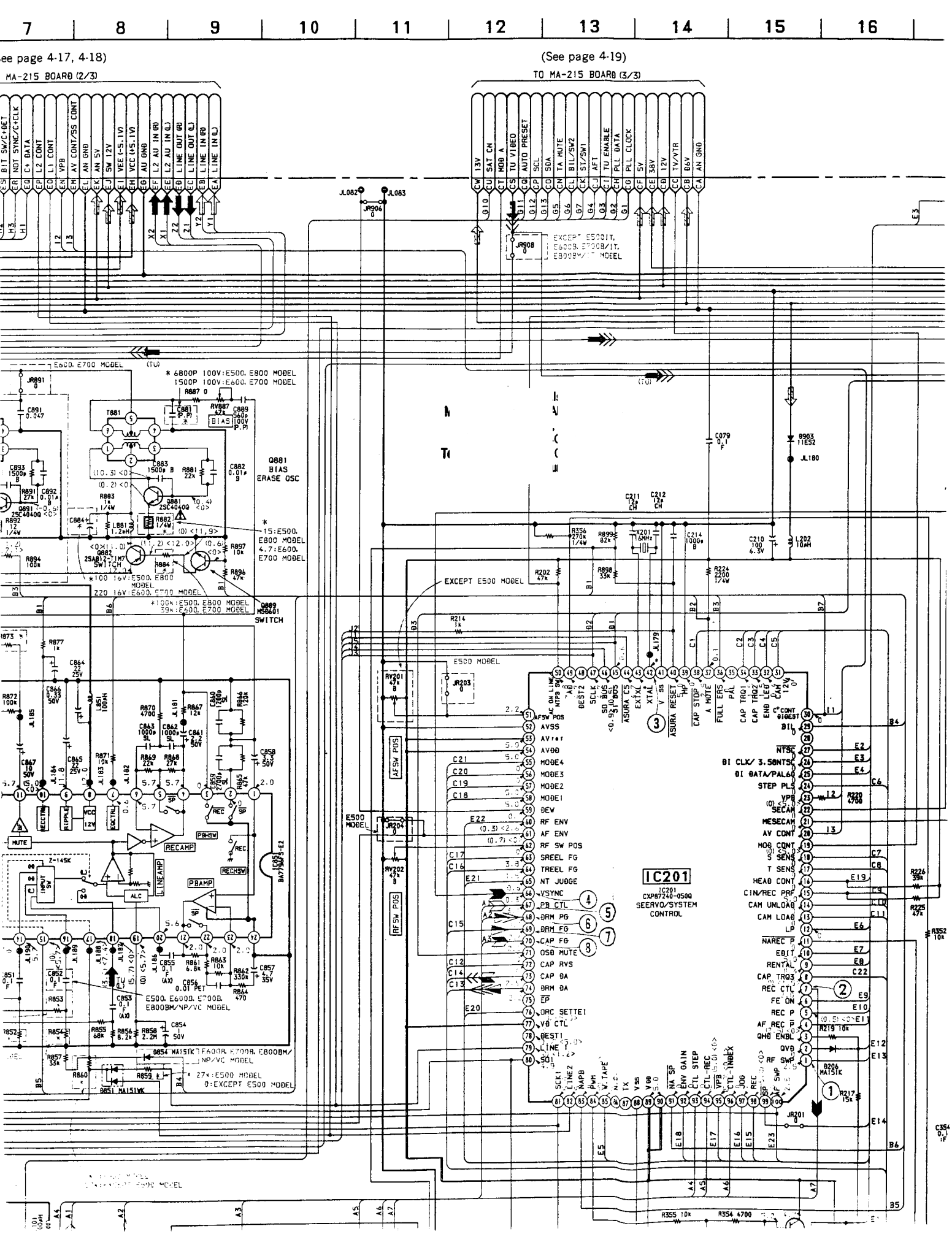
— Ref. No. MA-215 BOARD : 1,000 series, DC-58 BOARD :

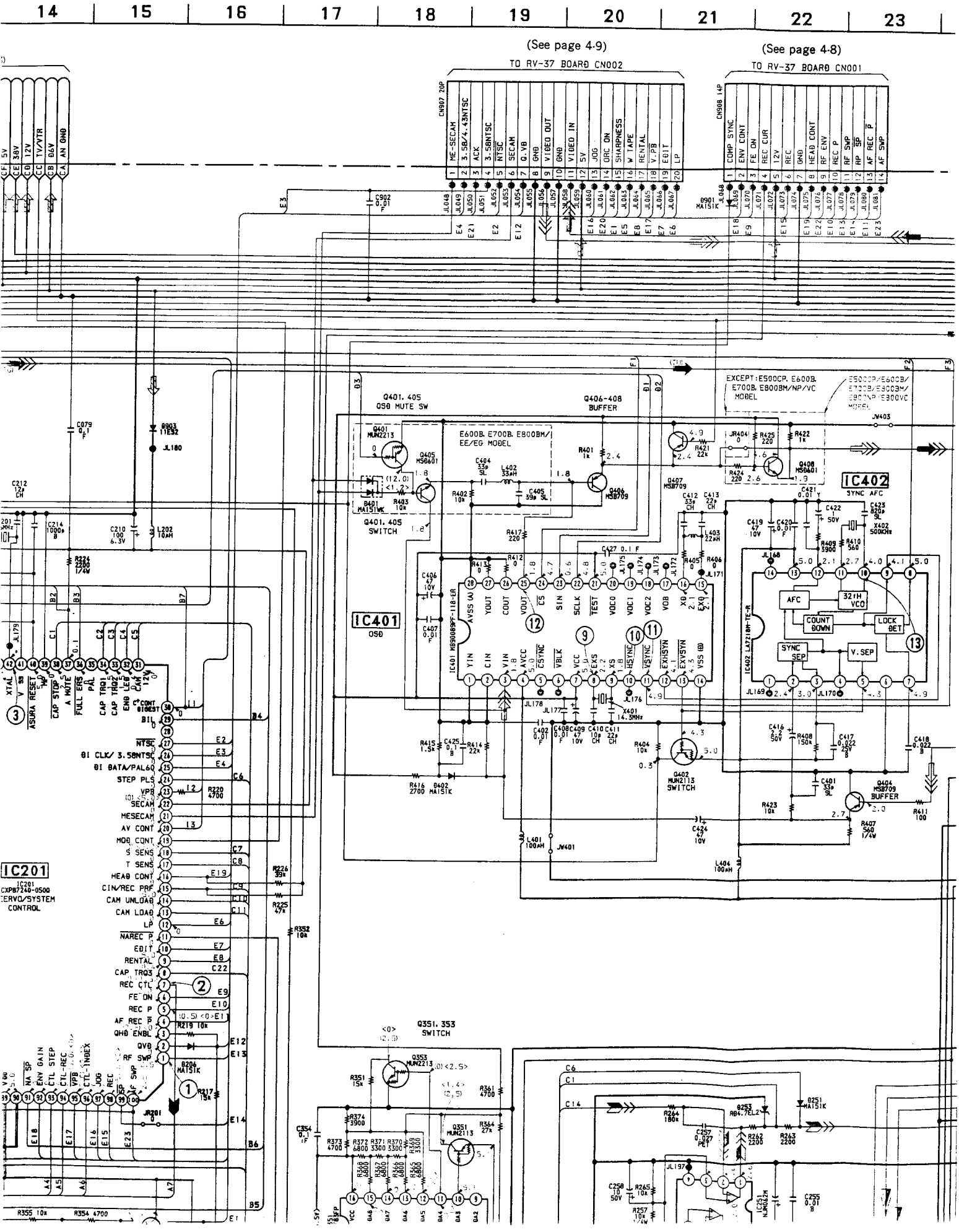


MA-215 (SERVO/SYSTEM CONTROL), DC-58 (RELAY) SCHEMATIC DIAGRAM

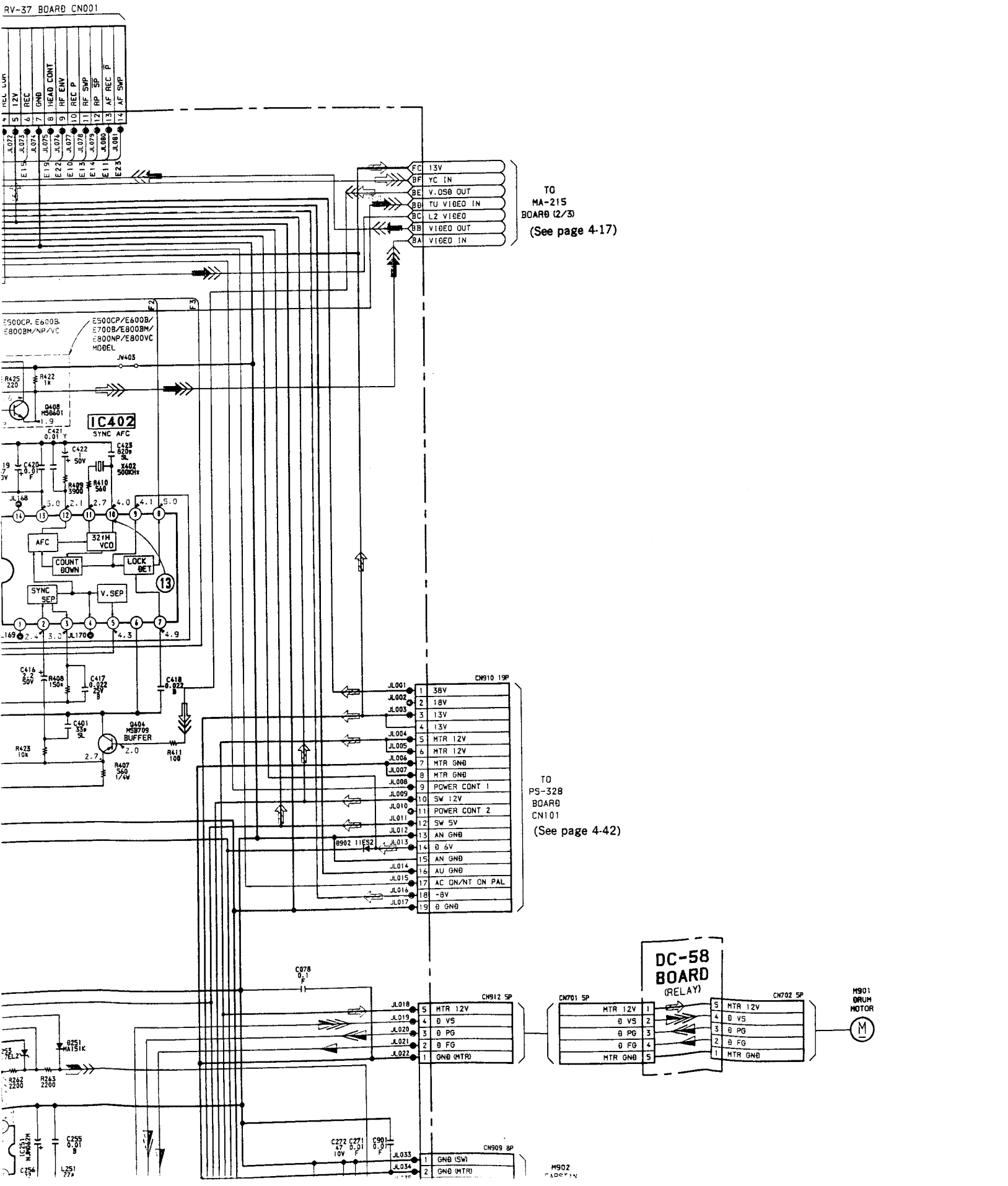
— Ref. No. MA-215 BOARD : 1,000 series, DC-58 BOARD : 4,000 series —



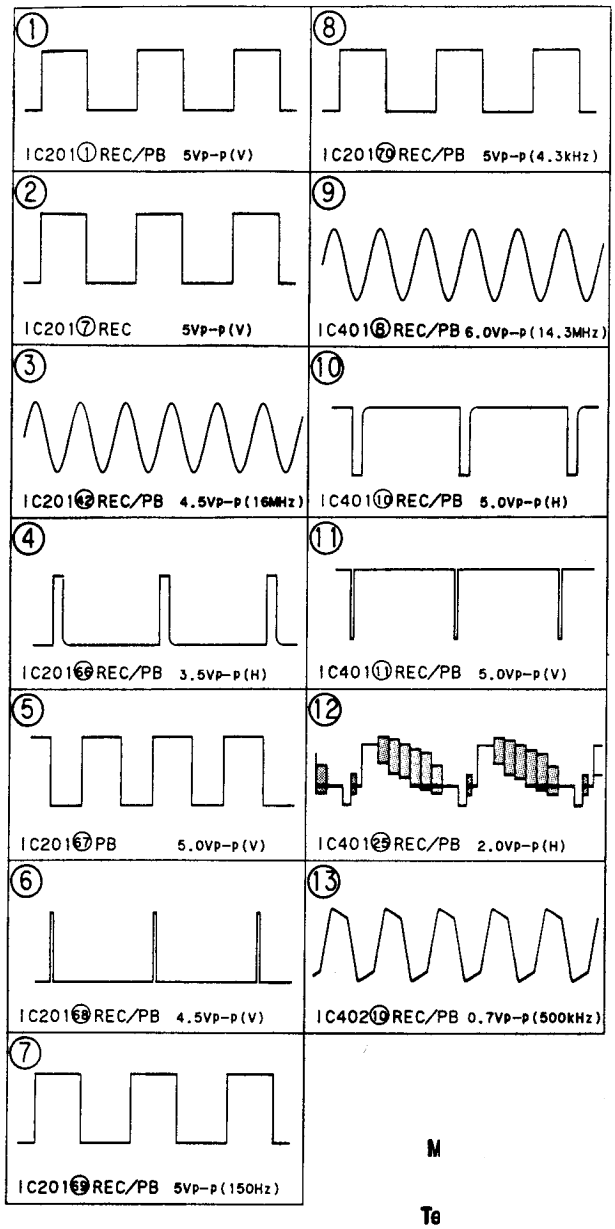

7
8
9
10
11
12
13
14
15
16
(See page 4-17, 4-18)
(See page 4-19)
MA-215 BOARD (2/3)
TO MA-215 BOARD (3/3)
IC201
CXP87240-050Q
SEERVO/SYSTEM
CONTROL
Q881
BIAS
ERASE OSC
Q889
MS6401
SWITCH
EXCEPT E500 MODEL
E500 MODEL
E600, E700 MODEL
E800, E800BM/NP/VC MODEL
EXCEPT E500, E600, E700, E800, E800BM/NP/VC MODEL


14
15
16
17
18
19
20
21
22
23
(See page 4-9)
(See page 4-8)
TO RV-37 BOARD CN002
TO RV-37 BOARD CN001
CN907 20P
CN908 14P
ME-SECAM
3.58/4.43NTSC
ACK
3.58NTSC
NTSC
SECAM
G.YB
GND
V16ED OUT
GND
V16ED IN
5V
JOG
ORC ON
SHARPNESS
W TAPE
RENTAL
V.PB
EDIT
LP
COMP SYNC
ENV CONT
FE ON
REC CUR
12V
REC
GND
HEAD CONT
RF ENV
REC P
RF SWP
RP
AF REC P
AF SWP
IC401
OSD
IC402
SYNC AFC
IC201
SERVO/SYSTEM CONTROL
Q401, 405
OSD MUTE SW
Q406-408
BUFFER
Q402
SWITCH
Q351, 353
SWITCH
EXCEPT: E500CP, E600B, E700B, E800BM/NP/VC MODEL
E600B, E700B, E800BM/EE/EG MODEL
AFC
VCO
COUNT DOWN
LOCK DET
SYNC SEP
V.SEP

See page 4-8)


RV-37 BOARD CN001
REC LOAD
5 12V
6 REC
7 GND
8 HEAD CONT
9 RF ENV
10 REC P
11 RF SWP
12 RP SP
13 AF REC P
14 AF SWP
JL072 JL073 JL074 JL075 JL076 JL077 JL078 JL079 JL080 JL081
E15 E19 E22 E10 E13 E14 E11 E23
FC 13V
BF YC IN
BE V.OSD OUT
BD TU VIDEO IN
BC L2 VIDEO
BB VIDEO OUT
BA VIDEO IN
TO MA-215 BOARD (2/3)
(See page 4-17)
E500CP, E600B, E800BM/NP/VC
E500CP/E600B/ E700B/E800BM/ E800NP/E800VC MODEL
JV403
R425 220
R422 1k
Q408 MS8601
IC402
SYNC AFC
C421 0.01 Y
C422 50V
C423 820p SL
X402 500KHz
C420 0.01 F
R409 3900
R410 560
JL148
AFC
32fH VCO
COUNT DOWN
LOCK DET
SYNC SEP
V.SEP
JL169
JL170
C416 2.2 50V
R408 150k
C417 0.022 250V B
C418 0.022 B
C401 33p SL
Q404 MS8709 BUFFER
R423 10k
R411 100
R407 560 1/4W
CN910 19P
JL001 1 38V
JL002 2 18V
JL003 3 13V
4 13V
JL004 5 MTR 12V
JL005 6 MTR 12V
JL006 7 MTR GND
JL007 8 MTR GND
JL008 9 POWER CONT 1
JL009 10 SW 12V
JL010 11 POWER CONT 2
JL011 12 SW 5V
JL012 13 AN GND
8902 11ES2 JL013 14 B 6V
15 AN GND
JL014 16 AU GND
JL015 17 AC ON/NT ON PAL
JL016 18 -8V
JL017 19 B GND
TO PS-328 BOARD CN101
(See page 4-42)
C078 0.1 F
DC-58 BOARD (RELAY)
CN912 5P
JL018 5 MTR 12V
JL019 4 B VS
JL020 3 B PG
JL021 2 B FG
JL022 1 GND (MTR)
CN701 5P
MTR 12V 1
B VS 2
B PG 3
B FG 4
MTR GND 5
CN702 5P
5 MTR 12V
4 B VS
3 B PG
2 B FG
1 MTR GND
M901 DRUM MOTOR
M
8251 MA151K
R262 2200
R263 2200
C255 0.01 B
C256
L251 27µ
C272 47 10V
C271 0.01 F
C901 0.01 F
CN909 8P
JL033 1 GND (SW)
JL034 2 GND (MTR)
M902

MA-215 BOARD

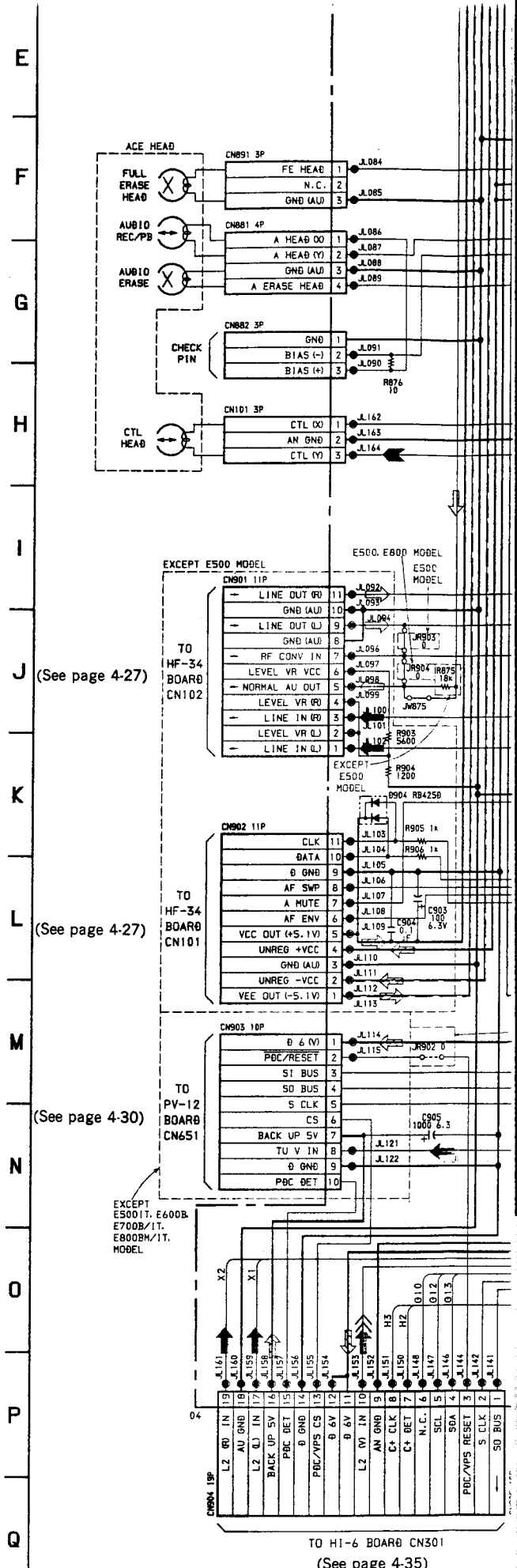

① IC201① REC/PB 5Vp-p(V)
② IC201⑦ REC 5Vp-p(V)
③ IC201⑫ REC/PB 4.5Vp-p(16MHz)
④ IC201⑯ REC/PB 3.5Vp-p(H)
⑤ IC201⑰ PB 5.0Vp-p(V)
⑥ IC201⑱ REC/PB 4.5Vp-p(V)
⑦ IC201⑲ REC/PB 5Vp-p(150Hz)
⑧ IC201⑳ REC/PB 5Vp-p(4.3kHz)
⑨ IC401⑧ REC/PB 6.0Vp-p(14.3MHz)
⑩ IC401⑩ REC/PB 5.0Vp-p(H)
⑪ IC401⑪ REC/PB 5.0Vp-p(V)
⑫ IC401㉕ REC/PB 2.0Vp-p(H)
⑬ IC402⑲ REC/PB 0.7Vp-p(500kHz)

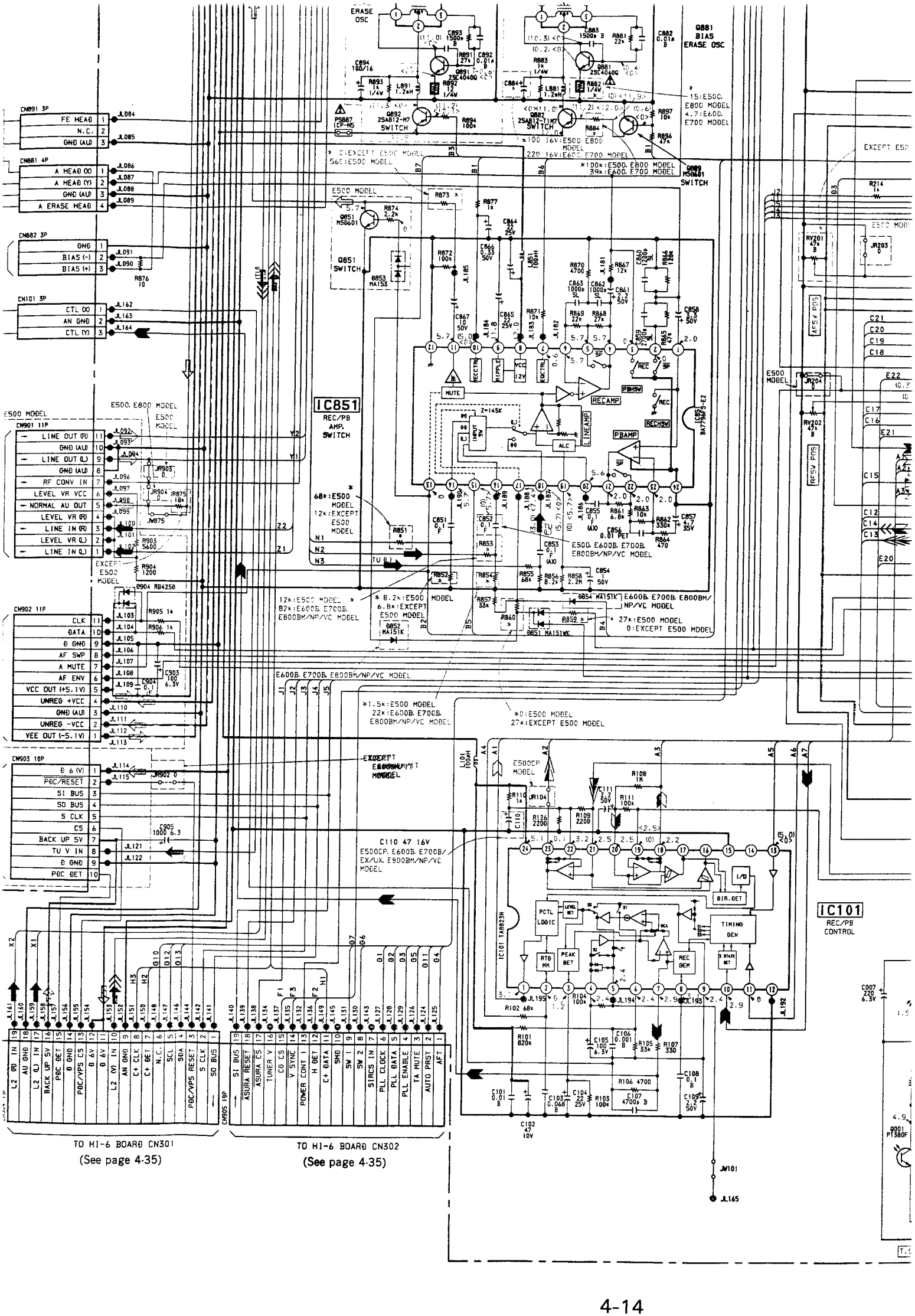
• Signal path

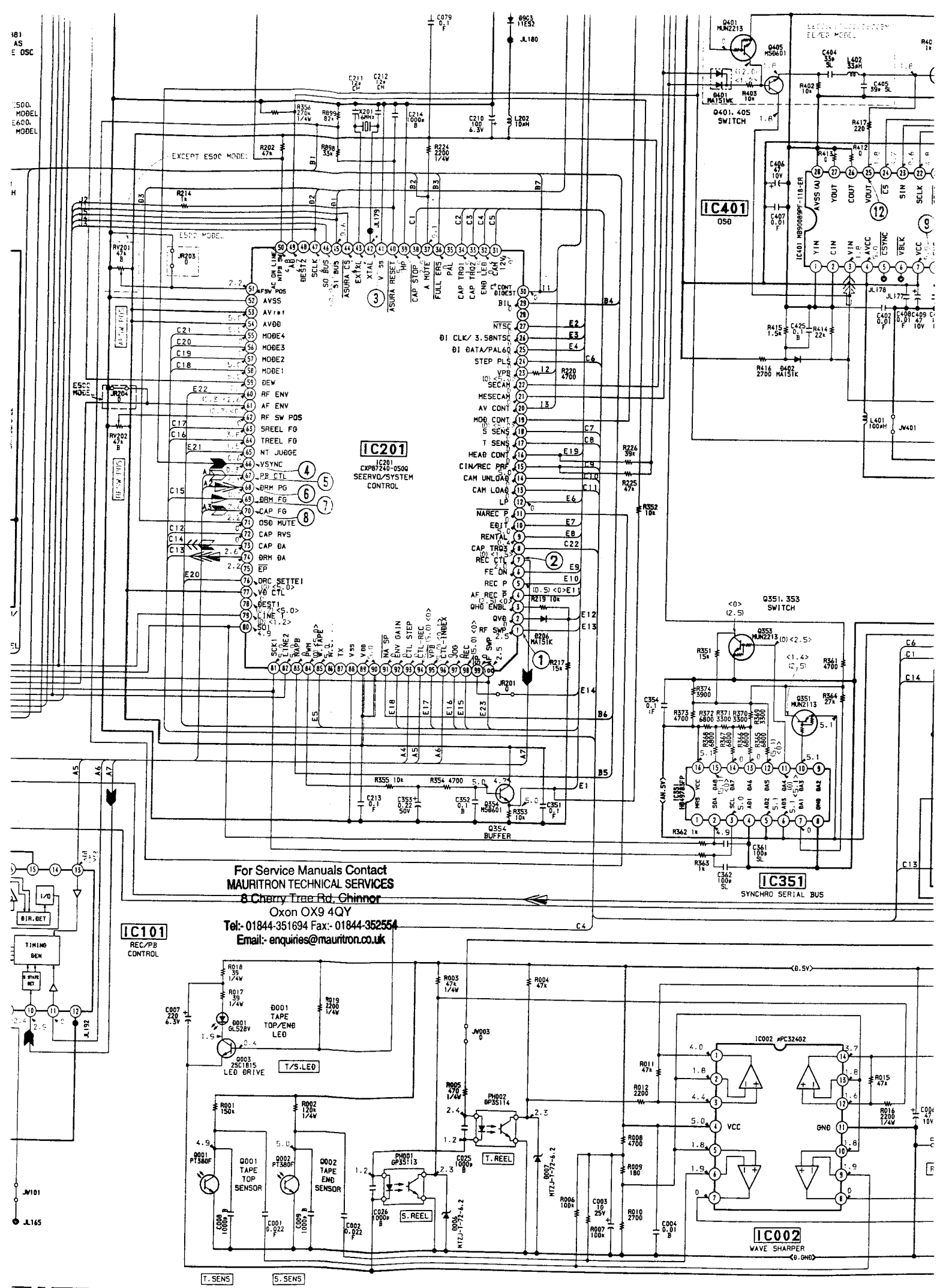
	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡⋙	➡
PB			⇨⋙	⇨

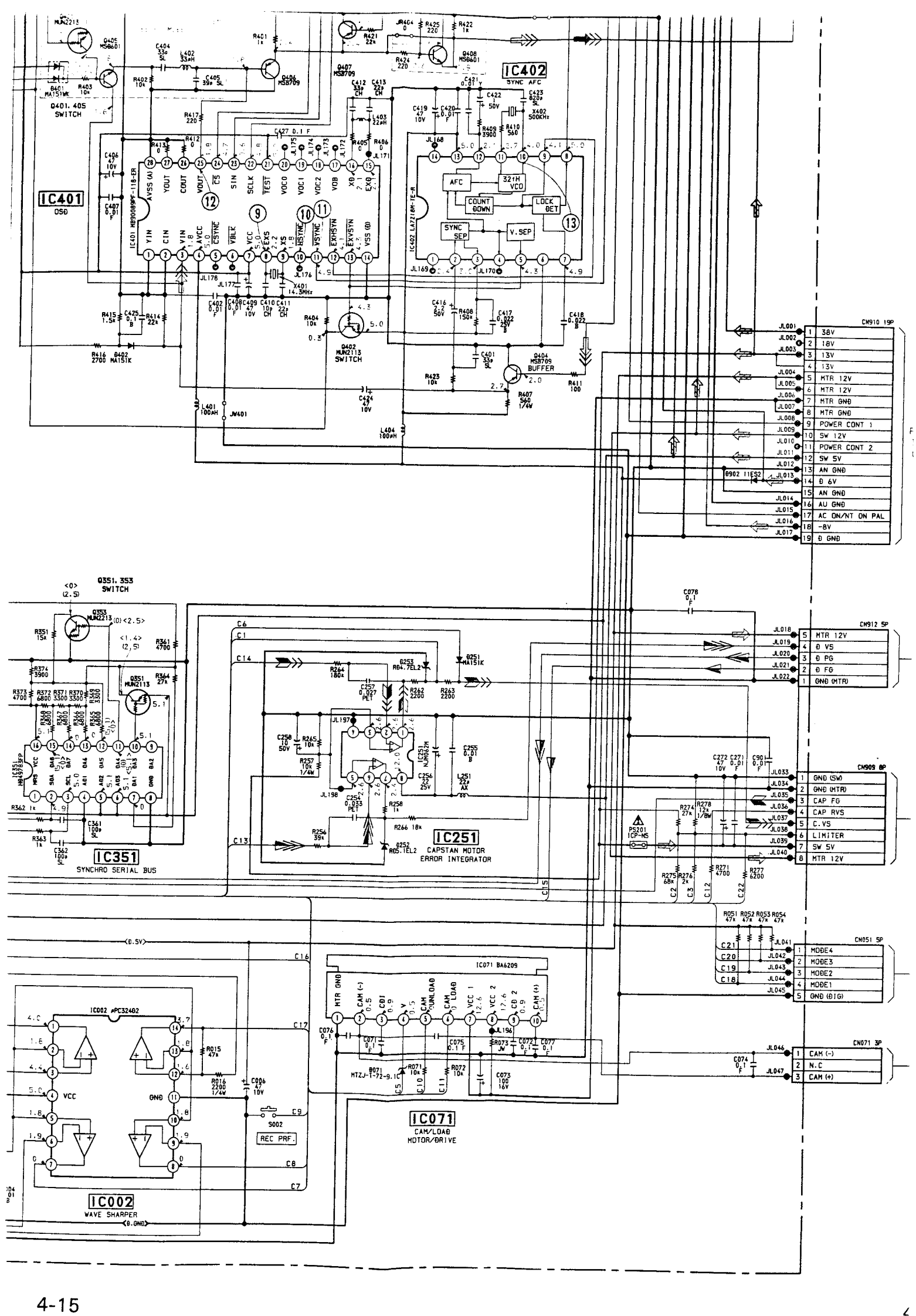
• Signal path

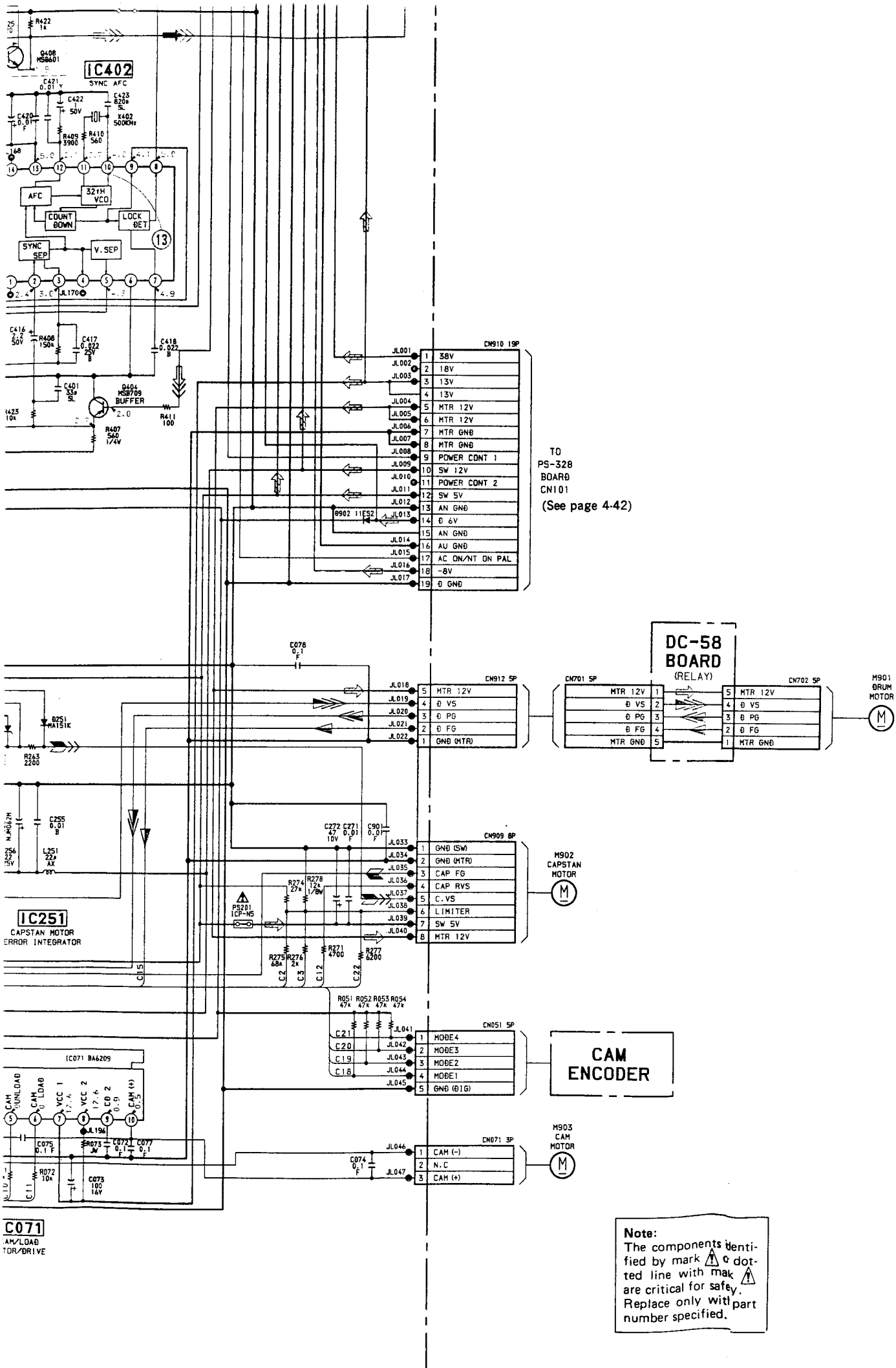
	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷▷	
Drum servo(speed and phase)		▷⋙	
Capstan speed servo		▷	
Capstan phase servo			
Capstan servo(speed and phase)		▷⋙	
Ref.signal	▶		▷




IC851
REC/PB AMP. SWITCH
IC101
REC/PB CONTROL
Q881 BIAS ERASE OSC
Q851 SWITCH
Q882 SWITCH
Q883 SWITCH
RECAMP
PBAMP
LINEAMP
ALC
MUTE
E500 MODEL
E600, E700, E800BM/NP/VC MODEL
CN891 3P
CN881 4P
CN882 3P
CN101 3P
CN901 11P
CN902 11P
CN903 10P
CN905 19P
TO HI-6 BOARD CN301
(See page 4-35)
TO HI-6 BOARD CN302
(See page 4-35)


IC201
IC201
CXP87240-050Q
SEERVO/SYSTEM
CONTROL
IC401
OSD
IC351
SYNCHRO SERIAL BUS
IC101
REC/PB
CONTROL
IC002
WAVE SHARPER
Q354
BUFFER
Q351. 353
SWITCH
Q401, 405
SWITCH
T.REEL
S.REEL
T/S.LED
T.SENS
S.SENS
Q001
TAPE
TOP
SENSOR
Q002
TAPE
END
SENSOR
Q003
TAPE
TOP/END
LED
EXCEPT ES00 MODEL
ES00 MODEL
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk


IC401
OSD
IC402
SYNC AFC
Q401, 405
SWITCH
Q402
MUN2213
SWITCH
Q404
MSB709
BUFFER
Q407
MSB709
Q408
MSB601
Q406
MSB709
Q401
MA151WK
IC402 LA7218M-TE-R
AFC
321H
VCO
COUNT
DOWN
LOCK
DET
SYNC
SEP
V.SEP
X401
14.3MHz
X402
500KHz
L401
100uH
L402
33uH
L403
22uH
L404
100uH
JW401
CN910 19P
1 38V
2 18V
3 13V
4 13V
5 MTR 12V
6 MTR 12V
7 MTR GND
8 MTR GND
9 POWER CONT 1
10 SW 12V
11 POWER CONT 2
12 SW 5V
13 AN GND
14 Ø 6V
15 AN GND
16 AU GND
17 AC ON/NT ON PAL
18 -8V
19 Ø GND
8902 11ES2
Q351, 353
SWITCH
Q353
MUN2213
Q351
MUN2113
IC351
HD49795FP
SYNCHRO SERIAL BUS
IC251
CAPSTAN MOTOR
ERROR INTEGRATOR
IC251
NJM2424
D251
MA151K
D252
RD5.1EL2
D253
RD4.7EL2
CN912 5P
5 MTR 12V
4 Ø VS
3 Ø PG
2 Ø FG
1 GND (MTR)
CN909 8P
1 GND (SW)
2 GND (MTR)
3 CAP FG
4 CAP RVS
5 C.VS
6 LIMITER
7 SW 5V
8 MTR 12V
PS201
ICP-N5
CN051 5P
1 MODE4
2 MODE3
3 MODE2
4 MODE1
5 GND (DIG)
IC071
CAM/LOAD
MOTOR/DRIVE
IC071 BA6209
MTR GND
CAM (-)
CDI
V
CAM UNLOAD
CAM LOAD
VCC 1
VCC 2
CD 2
CAM (+)
B071
MTZJ-T-72-9.1C
CN071 3P
1 CAM (-)
2 N.C
3 CAM (+)
IC002
WAVE SHARPER
IC002 μPC32402
VCC
GND
S002
REC PRF.

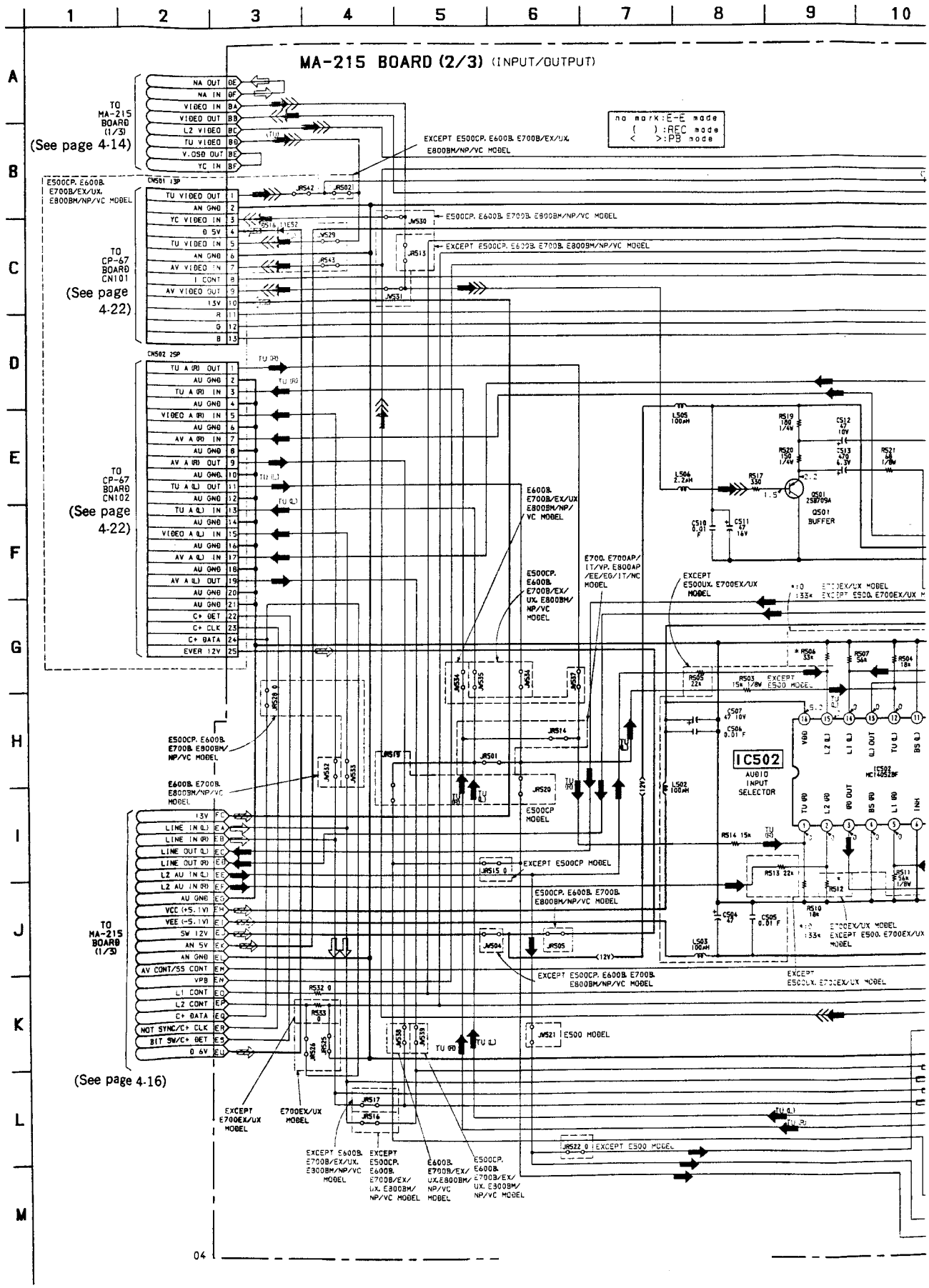


Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

MA-215 (INPUT/OUTPUT, TUNER) SCHEMATIC DIAGRAM

— Ref. No. MA-215 BOARD : 1,000 series —

• Refer to page 4-10 for Printed Wiring Board.



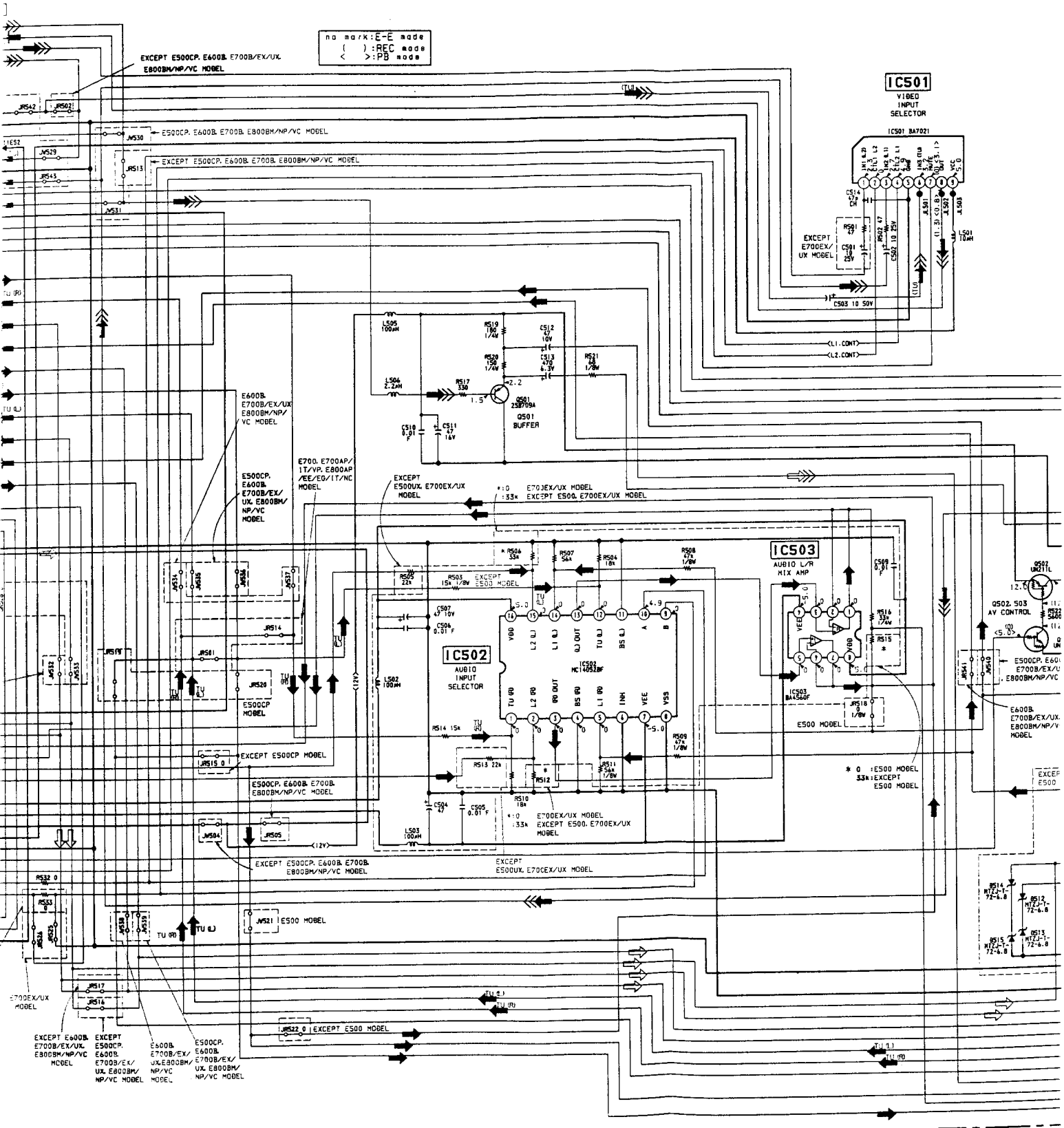
?) SCHEMATIC DIAGRAM

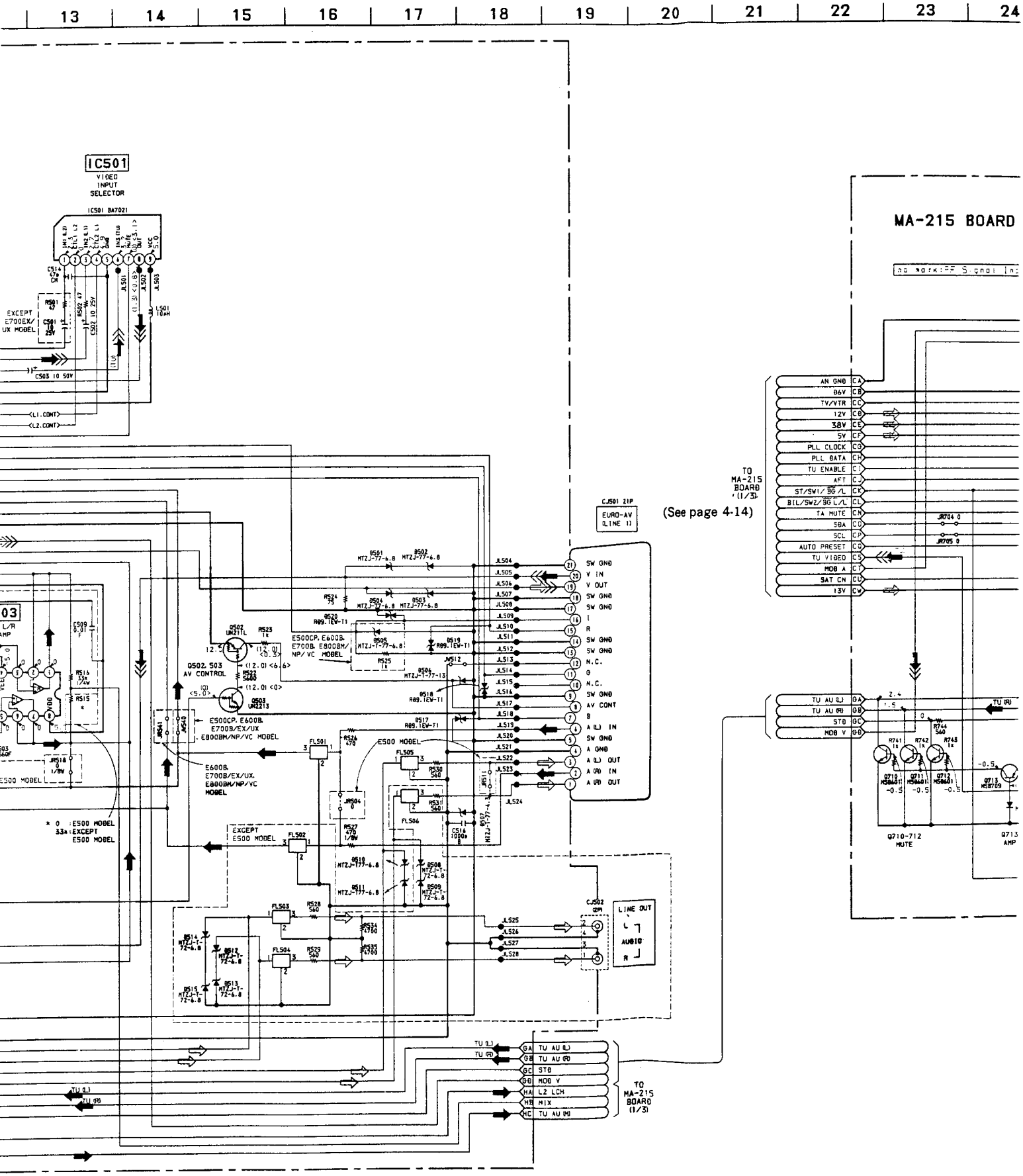
() series —

Wiring Board.

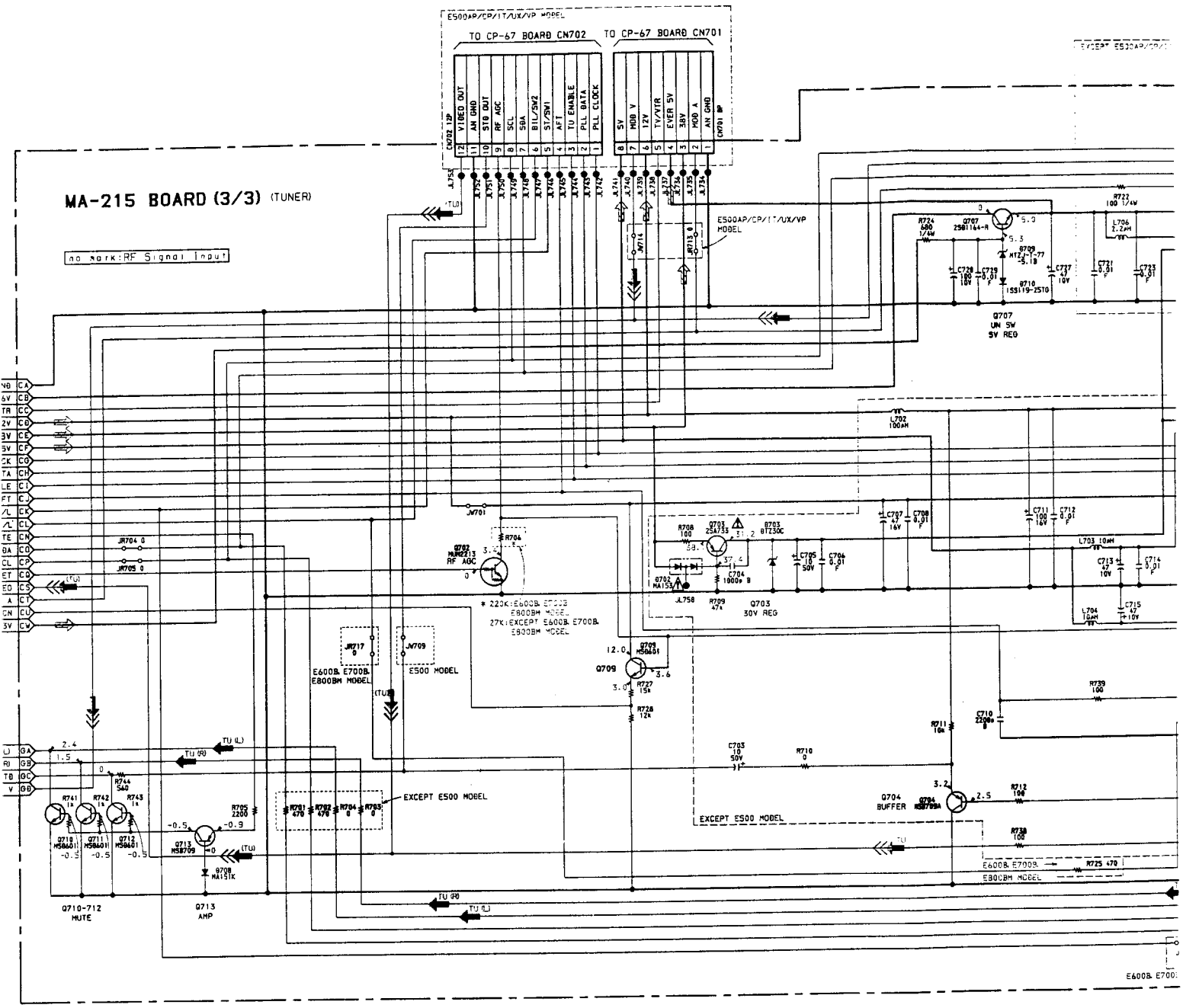
4 5 6 7 8 9 10 11 12 13 14 15

MA-215 BOARD (2/3) (INPUT/OUTPUT)

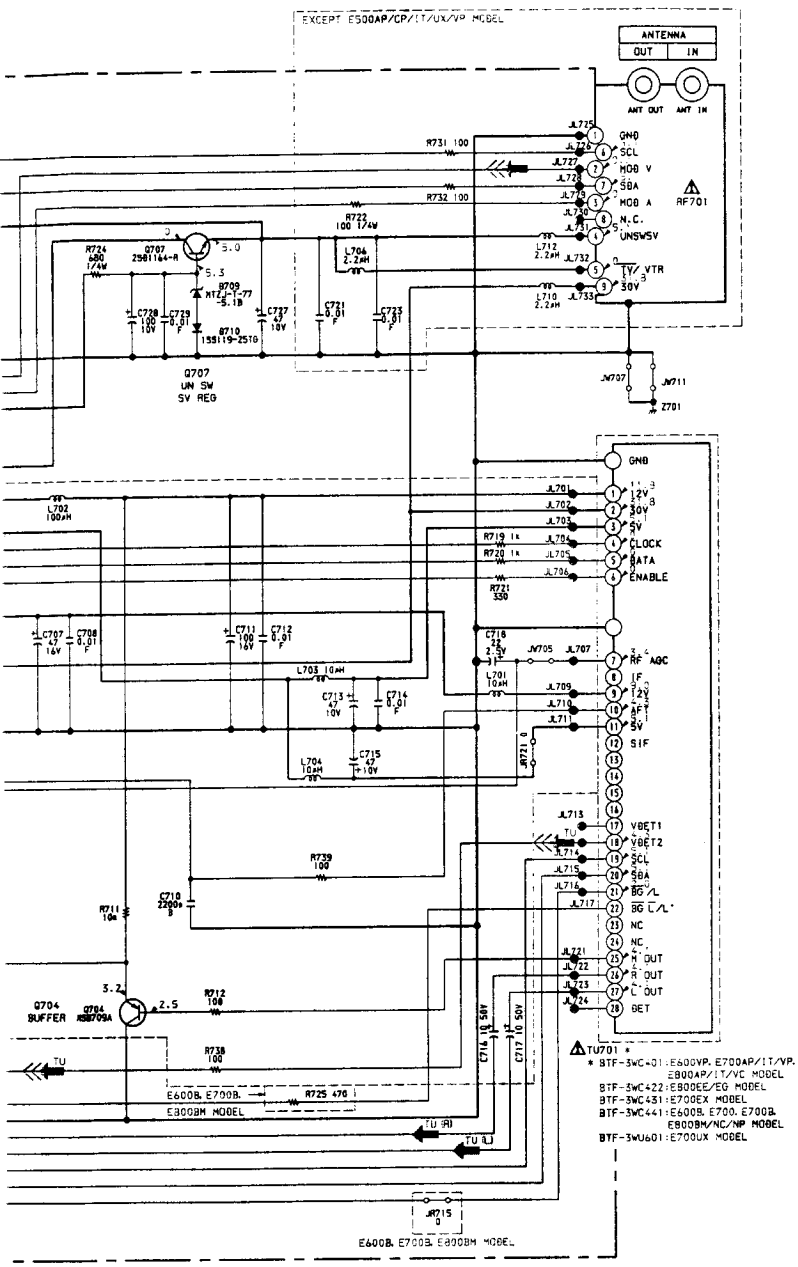



13
14
15
16
17
18
19
20
21
22
23
24
IC501
VIDEO INPUT SELECTOR
IC501 BA7021
MA-215 BOARD
TO MA-215 BOARD (1/3)
(See page 4-14)
CJ501 21P
EURO-AV (LINE 1)
AN GND
06V
TV/VTR
12V
38V
5V
PLL CLOCK
PLL DATA
TU ENABLE
AFT
ST/SW1/BG /L
BIL/SW2/BG L'/L
TA MUTE
SDA
SCL
AUTO PRESET
TU VIDEO
MOD A
SAT CN
13V
SW GND
V IN
V OUT
I
R
N.C.
Q
AV CONT
B
A (L) IN
A GND
A (L) OUT
A (R) IN
A (R) OUT
Q502, 503 AV CONTROL
E500CP, E600B, E700B, E800BM/NP/VC MODEL
E600B, E700B/EX/UX, E800BM/NP/VC MODEL
E500 MODEL
EXCEPT E500 MODEL
* 0 :E500 MODEL
33a:EXCEPT E500 MODEL
CJ502 (2P)
LINE OUT
AUDIO
TU AU (L)
TU AU (R)
STB
MOD V
L2 LCH
MIX
TU AU (M)
TO MA-215 BOARD (1/3)
Q710-712 MUTE
Q713 AMP

(See page 4-23) (See page 4-23)



Note:
The compor
fied by mar
ted line wi
are critical f
Replace onl
number spec



• **Signal path**

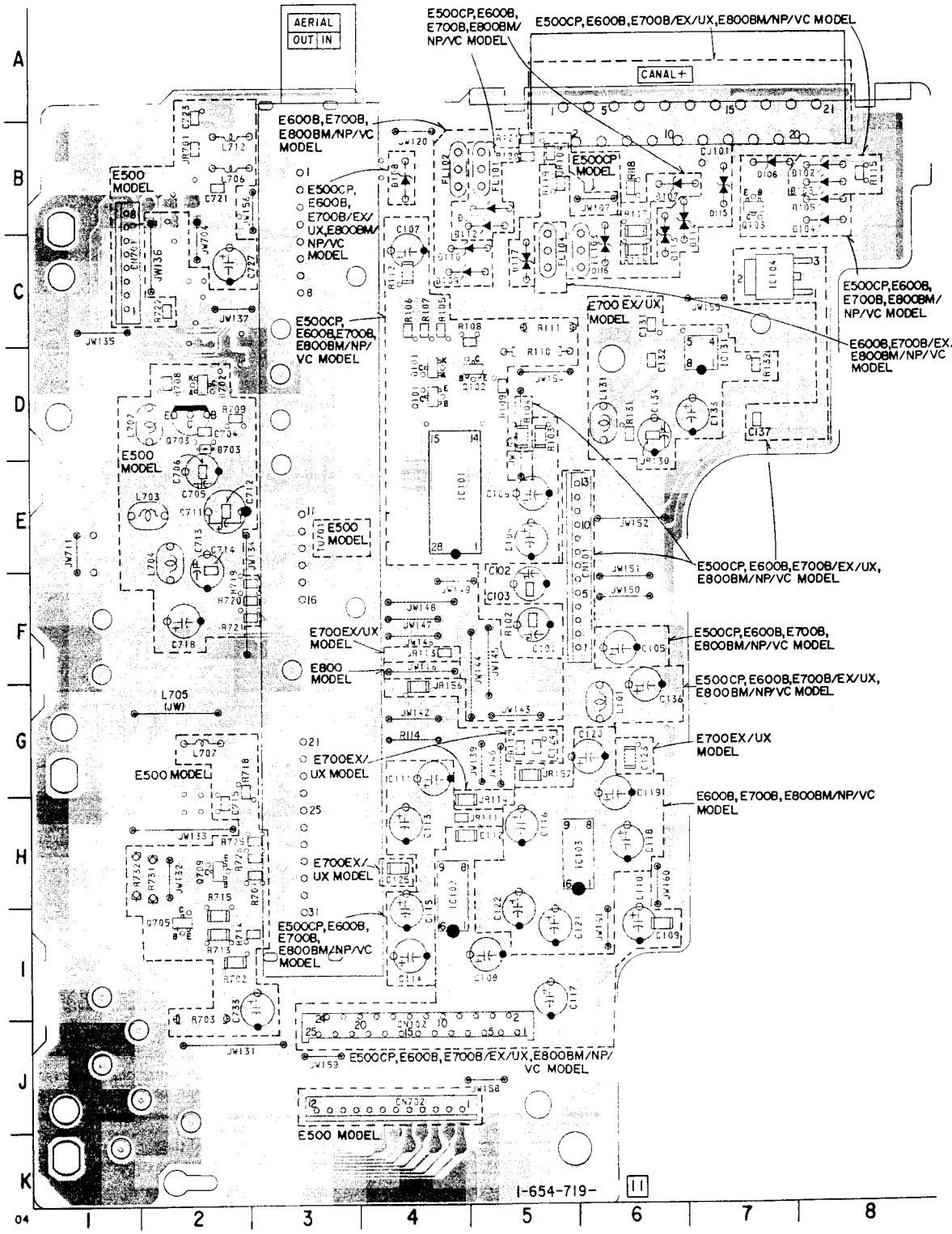
	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡	➡
PB			⇨	⇨

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

CP-67 (CANAL+, TUNER) PRINTED WIRING BOARD

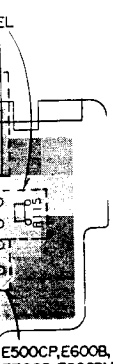
— Ref. No. CP-67 BOARD : 5,000 series —

CP-67 BOARD (E500, E600B, E700B/EX/UX, E800BM/NP/VC MODEL)



CP-67 BOARD

CN101	E-5
CN102	J-4
CN701	C-2
CN702	J-4
D101	D-4
D102	B-8
D103	B-8
D104	B-8
D105	B-8
D106	B-7
D107	B-7
D108	B-4
D109	C-4
D110	C-4
D111	B-4
D112	B-4
D113	C-6
D114	C-6
D115	B-7
D116	C-5
D117	C-5
D702	D-2
D703	D-2
IC101	E-4
IC102	H-4
IC103	H-5
IC104	C-7
IC131	D-6
Q101	D-4
Q102	D-5
Q103	B-7
Q703	D-2
Q705	I-2
Q709	H-2



E500CP,E600B,
E700B,E800BM/
NP/VC MODEL

E600B,E700B/EX/UX,
E800BM/NP/VC
MODEL

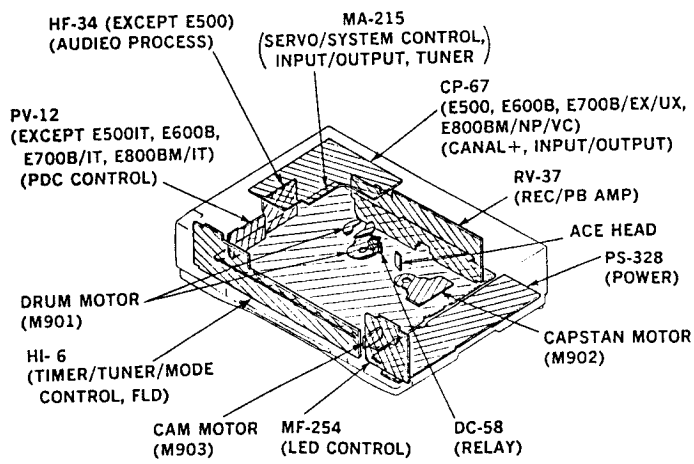
EX/UX,

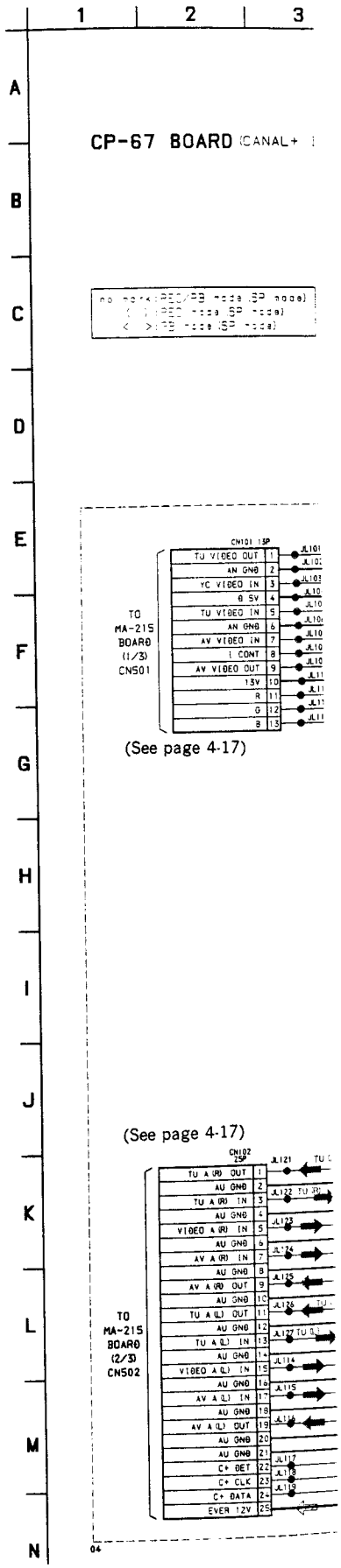
EX/UX,

NP/VC

CP-67 BOARD

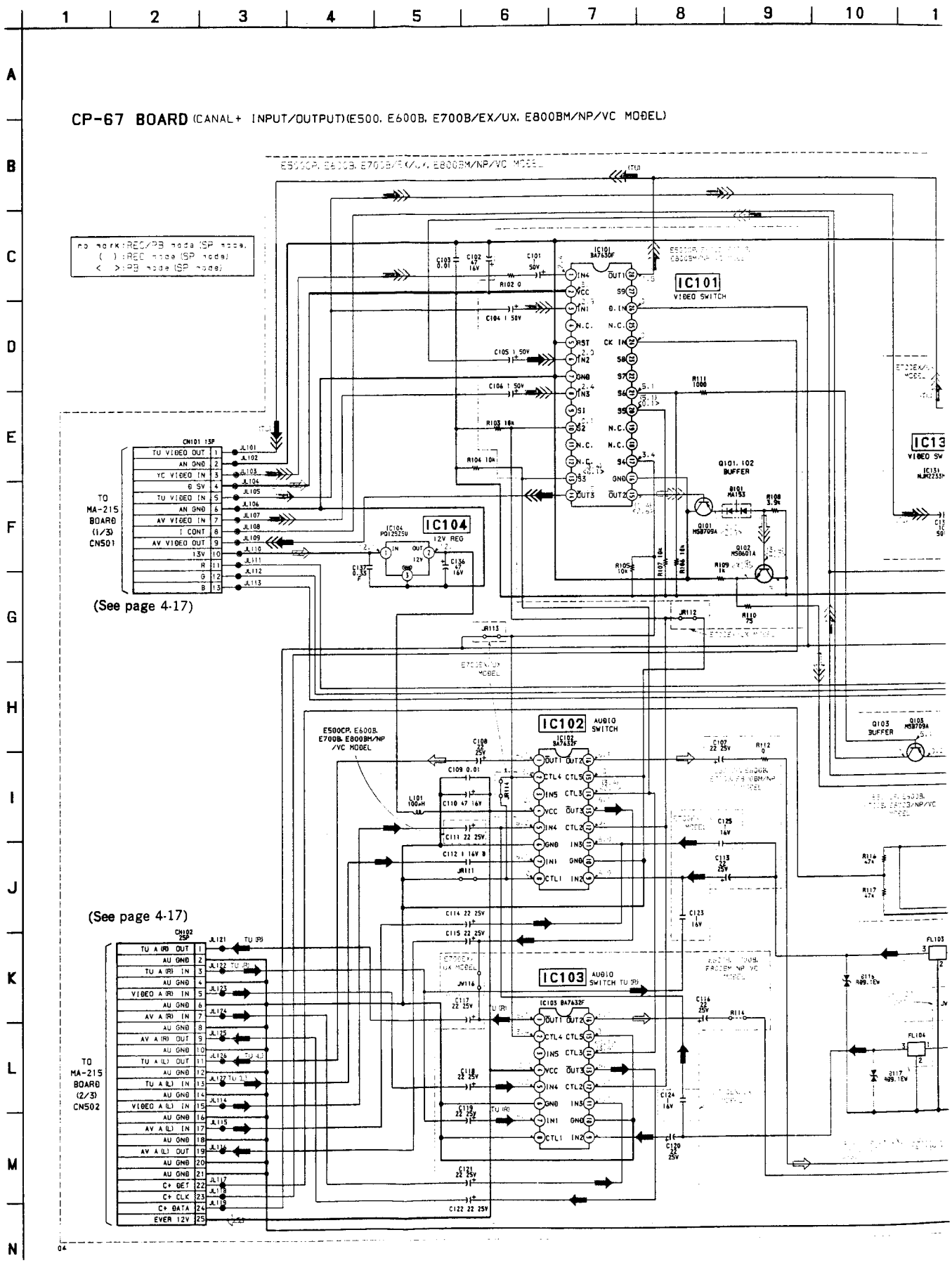
CN101	E-5
CN102	J-4
CN701	C-2
CN702	J-4
D101	D-4
D102	B-8
D103	B-8
D104	B-8
D105	B-8
D106	B-7
D107	B-7
D108	B-4
D109	C-4
D110	C-4
D111	B-4
D112	B-4
D113	C-6
D114	C-6
D115	B-7
D116	C-5
D117	C-5
D702	D-2
D703	D-2
IC101	E-4
IC102	H-4
IC103	H-5
IC104	C-7
IC131	D-6
Q101	D-4
Q102	D-5
Q103	B-7
Q703	D-2
Q705	I-2
Q709	H-2



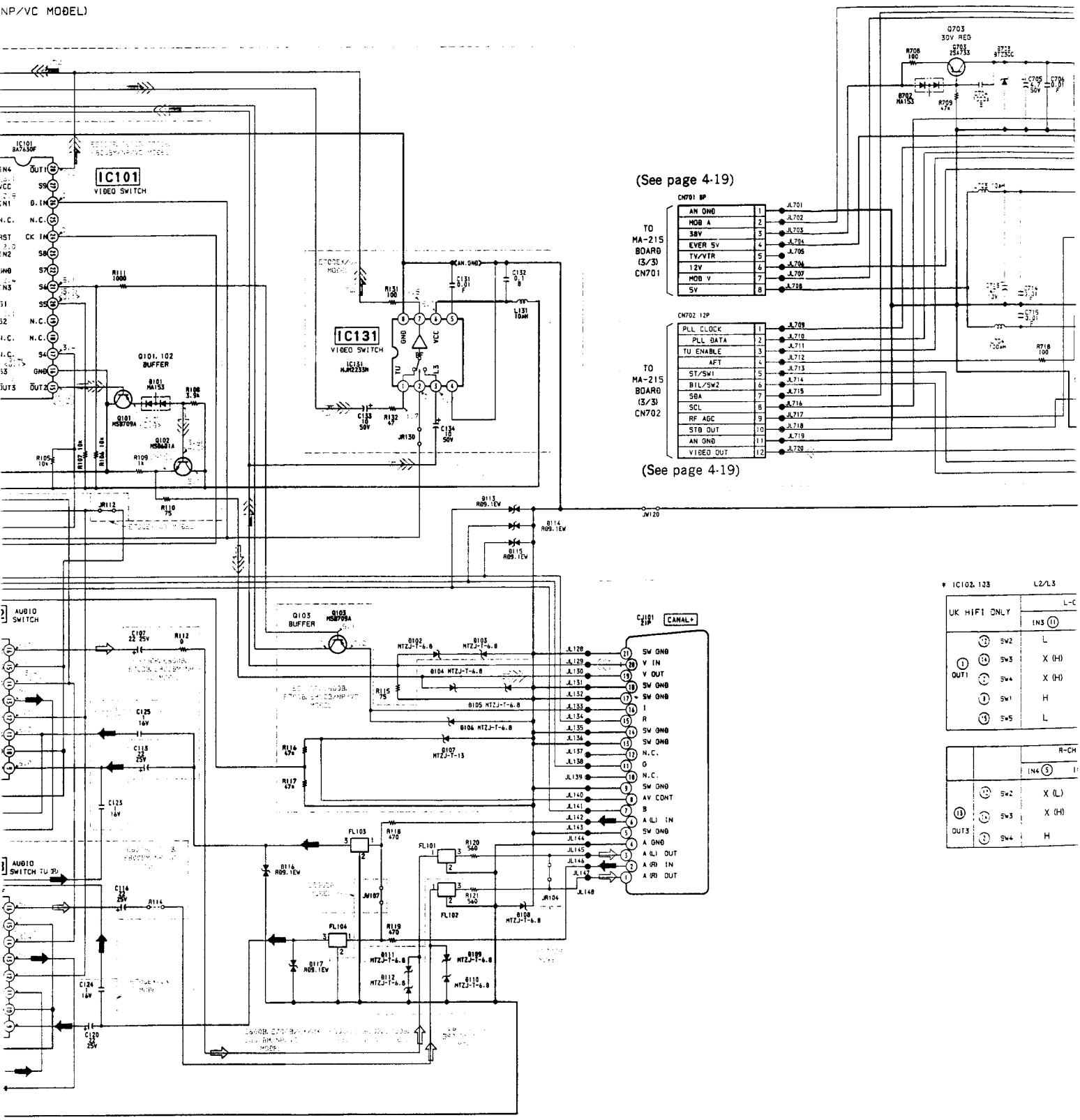


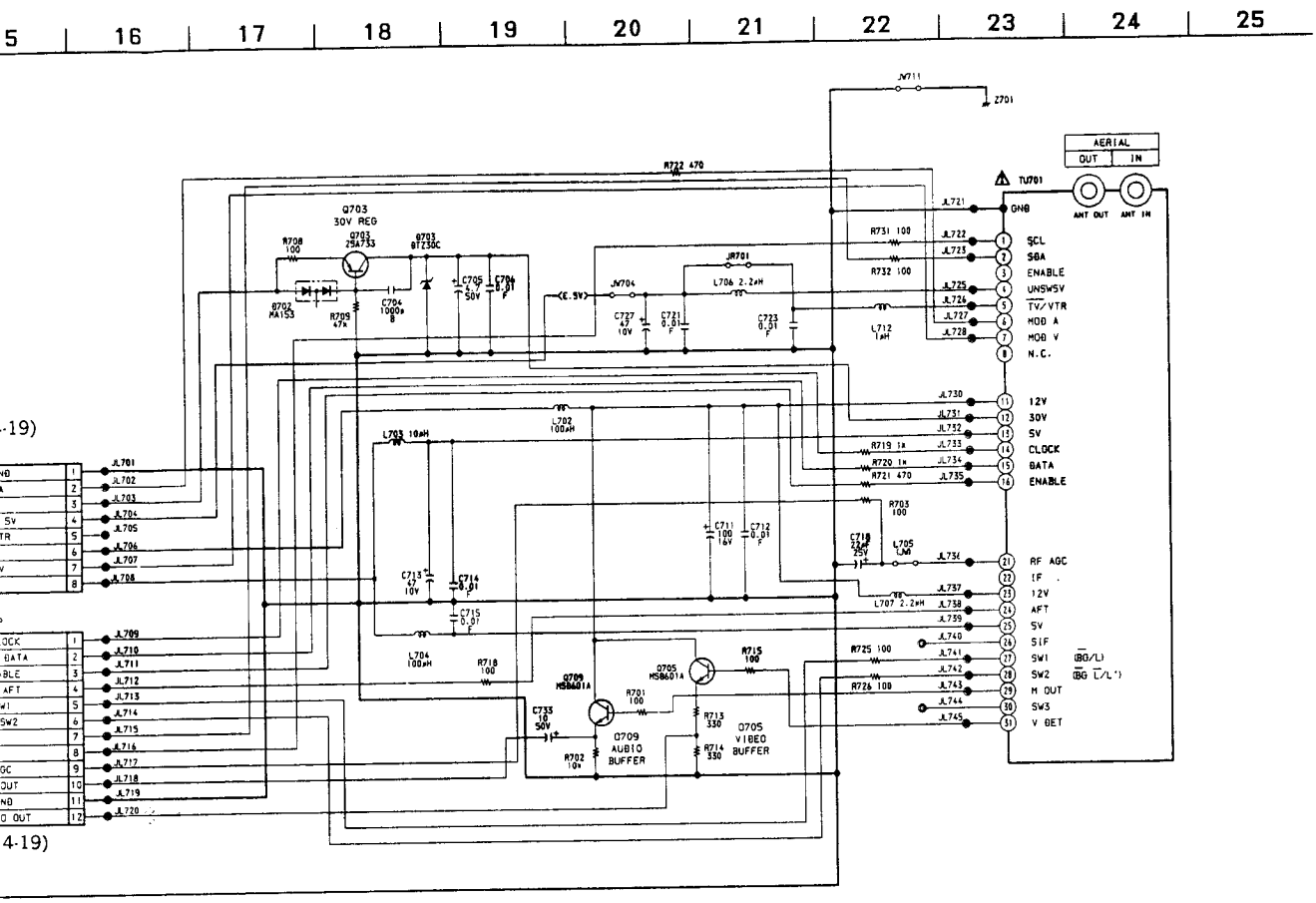
CP-67 (CANAL+, TUNER) SCHEMATIC DIAGRAM

— Ref. No. CP-67 BOARD : 5,000 series —



NP/VC MODEL)


IC101
VIDEO SWITCH
IC131
VIDEO SWITCH
Q101, 102
BUFFER
Q103
BUFFER
Q703
30V REG
(See page 4-19)
TO
MA-215
BOARD
(3/3)
CN701
CN701 8P
AN GND
MOB A
38V
EVER 5V
TV/VTR
12V
MOB V
5V
TO
MA-215
BOARD
(3/3)
CN702
CN702 12P
PLL CLOCK
PLL DATA
TU ENABLE
AFT
ST/SW1
BIL/SW2
SDA
SCL
RF AGC
STD OUT
AN GND
VIDEO OUT
(See page 4-19)
AUDIO
SWITCH
AUDIO
SWITCH TU
CJ101
21P
CANAL+
SW GND
V IN
V OUT
SW GND
SW GND
I
R
SW GND
SW GND
N.C.
G
N.C.
SW GND
AV CONT
B
A (L) IN
SW GND
A GND
A (L) OUT
A (R) IN
A (R) OUT
* IC102, 103
L2/L3
UK HIFI ONLY
L-C
IN3 (11)
OUT1
SW2
SW3
SW4
SW1
SW5
L
X (H)
X (H)
H
L
R-CH
IN4 (5)
OUT3
SW2
SW3
SW4
X (L)
X (H)
H



* IC102, 103 L2/L3 TUNER

UK HIFI ONLY		L-CH	
		IN3 (11)	IN1 (7)
OUT1 (1)	(12) SW2	L	L
	(14) SW3	X (H)	X (H)
	(2) SW4	X (H)	X (L)
	(8) SW1	H	L
	(15) SW5	L	L

		R-CH	
		IN4 (5)	IN2 (3)
OUT3 (13)	(12) SW2	X (L)	X (L)
	(14) SW3	X (H)	X (H)
	(2) SW4	H	L

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

• Signal path

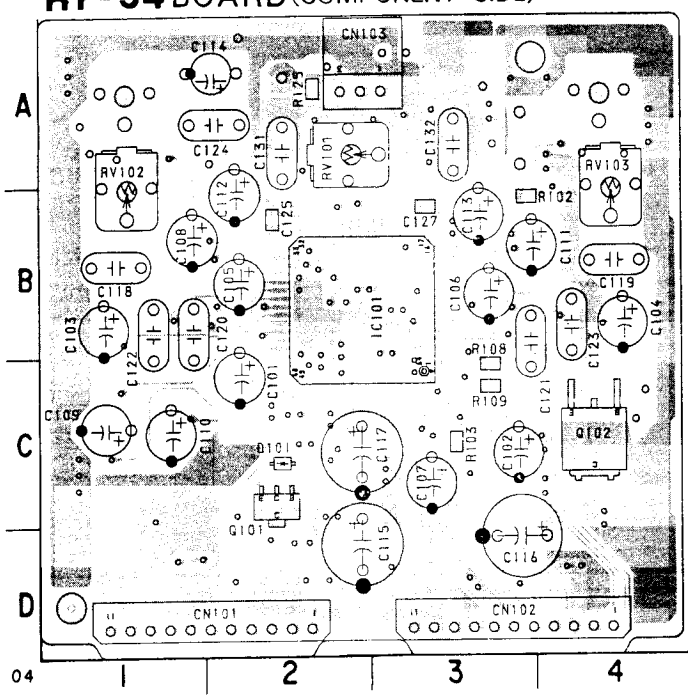
				AUDIO Signal
REC				➡
PB				⇨

CANAL+

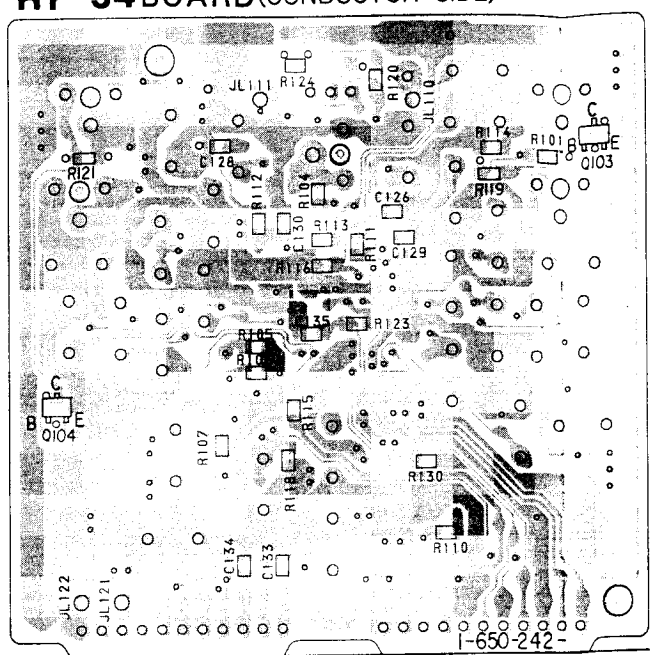
HF-34 (AUDIO PROCESS) PRINTED WIRING BOARD

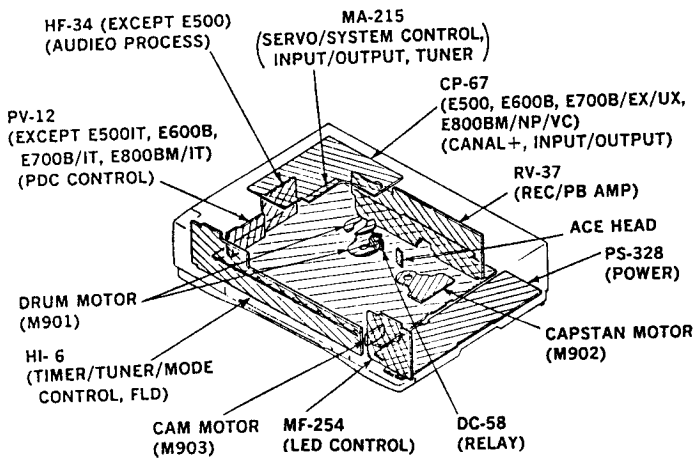
— Ref. No. HF-34 BOARD : 4,000 series —

HF-34 BOARD (COMPONENT SIDE)



HF-34 BOARD (CONDUCTOR SIDE)

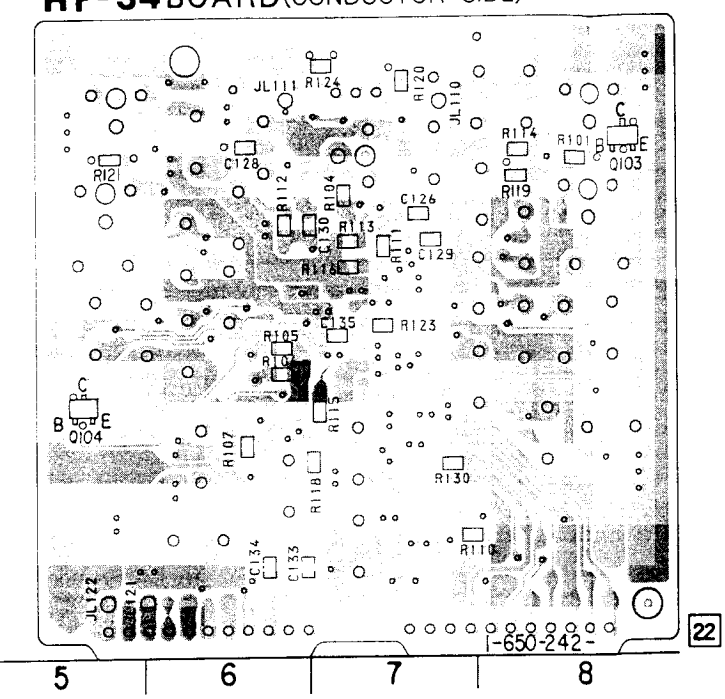




HF-34 (AUDIO PROCESS) SCHEMATIC DIAGR

— Ref. No. HF-34 BOARD : 4,000 series —

HF-34 BOARD (CONDUCTOR SIDE)



HF-34 BOARD	
CN101	D-1
CN102	D-3
CN103	A-2
D101	C-2
IC101	B-2
Q101	C-2
Q102	C-4
Q103	A-8
Q104	C-5

/EX/UX,

TPUT)

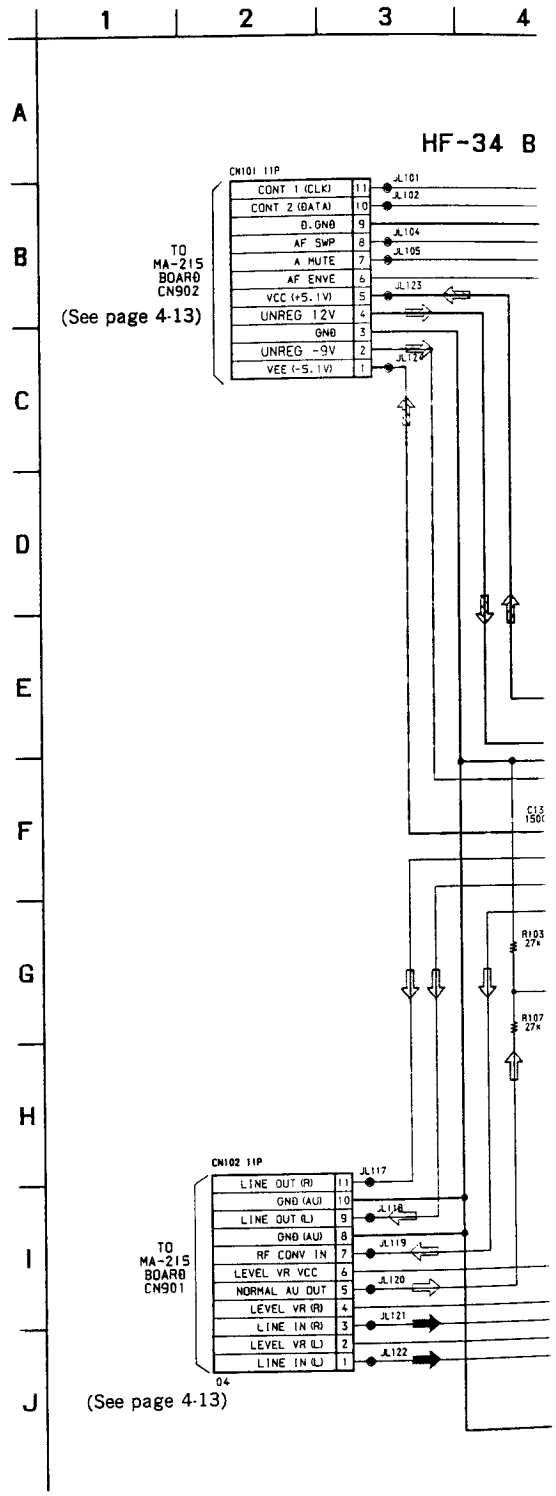
P)

EAD

-328

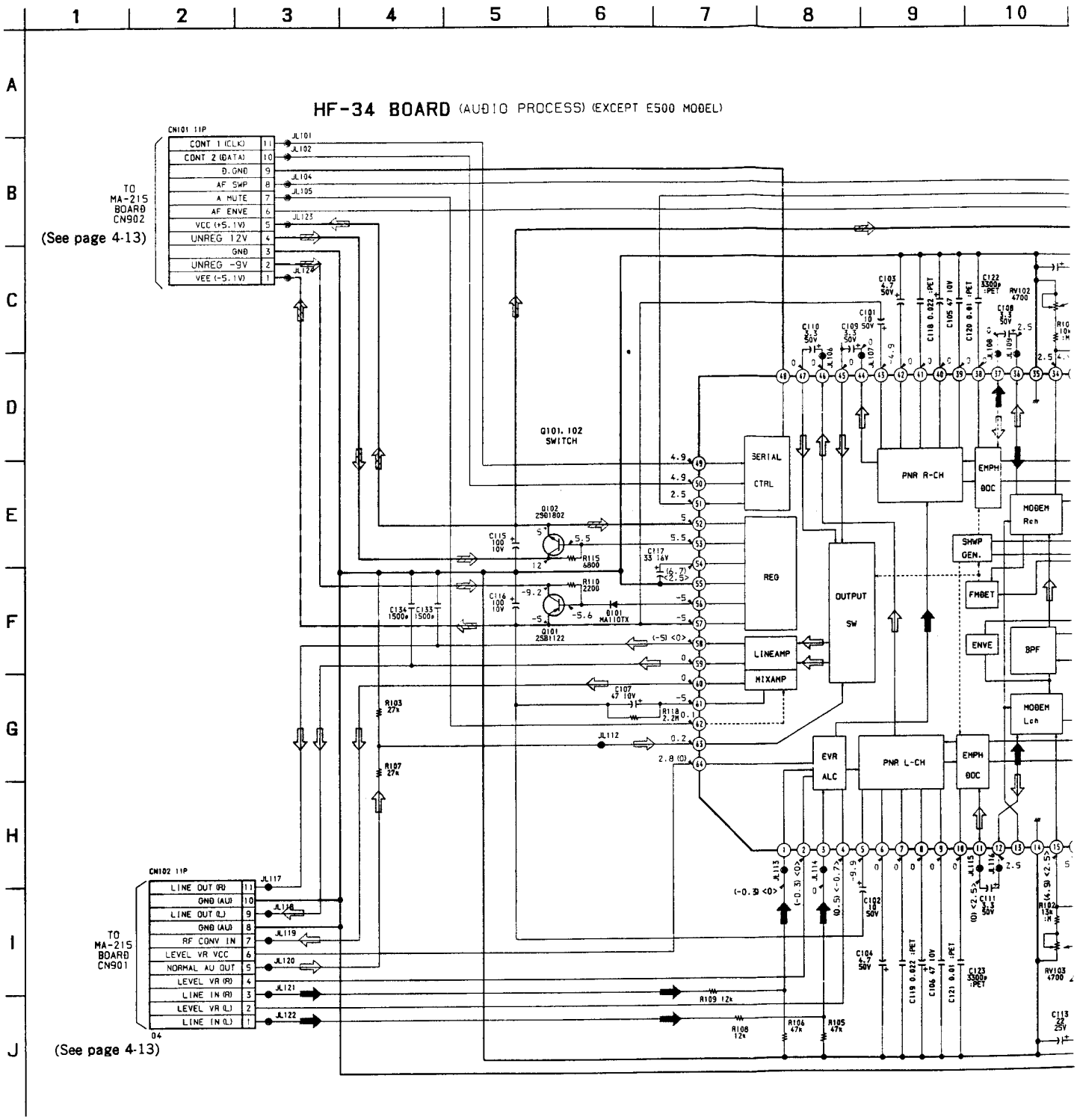
OWER)

I MOTOR

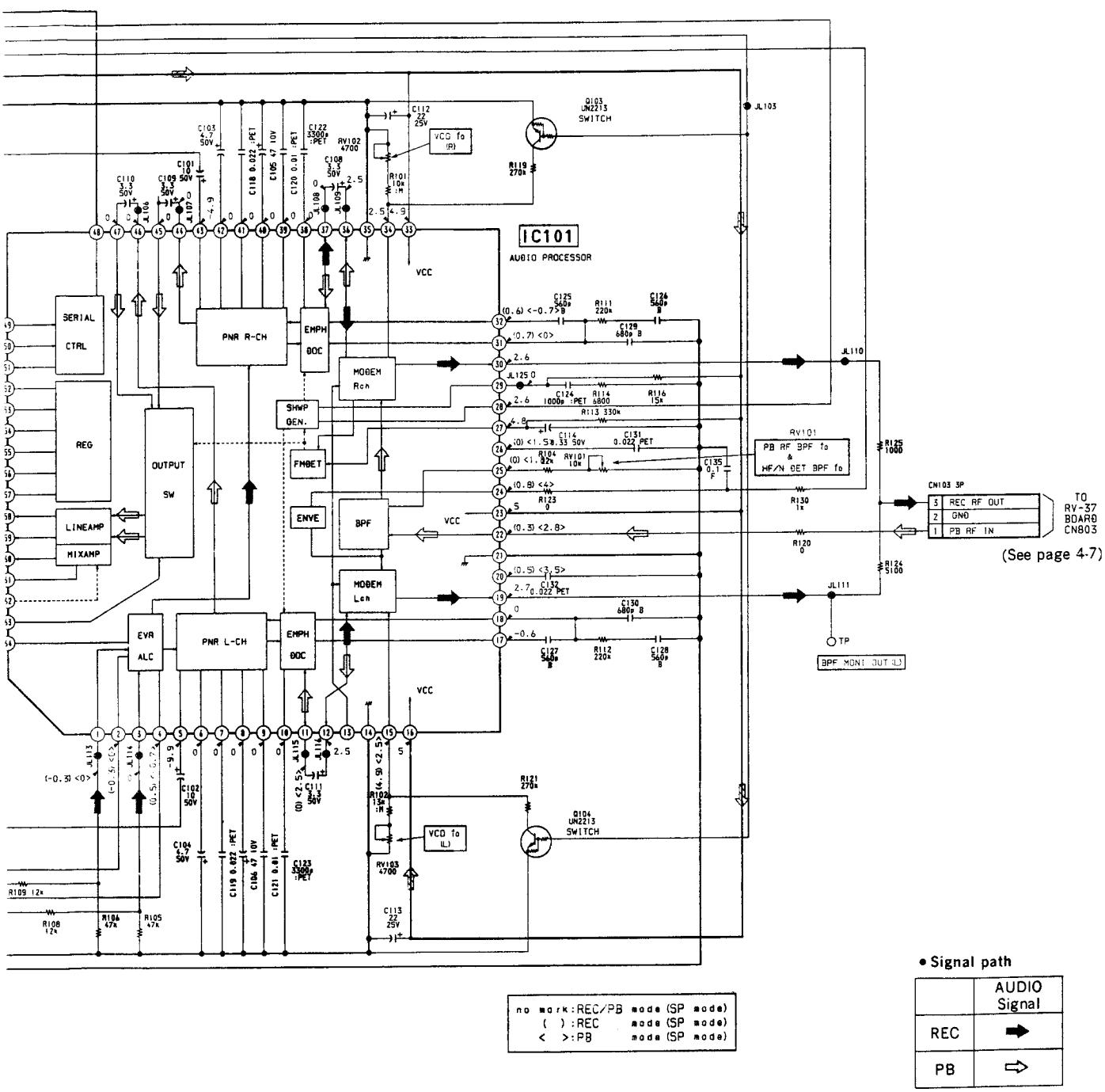


HF-34 (AUDIO PROCESS) SCHEMATIC DIAGRAM

— Ref. No. HF-34 BOARD : 4,000 series —



)DEL)

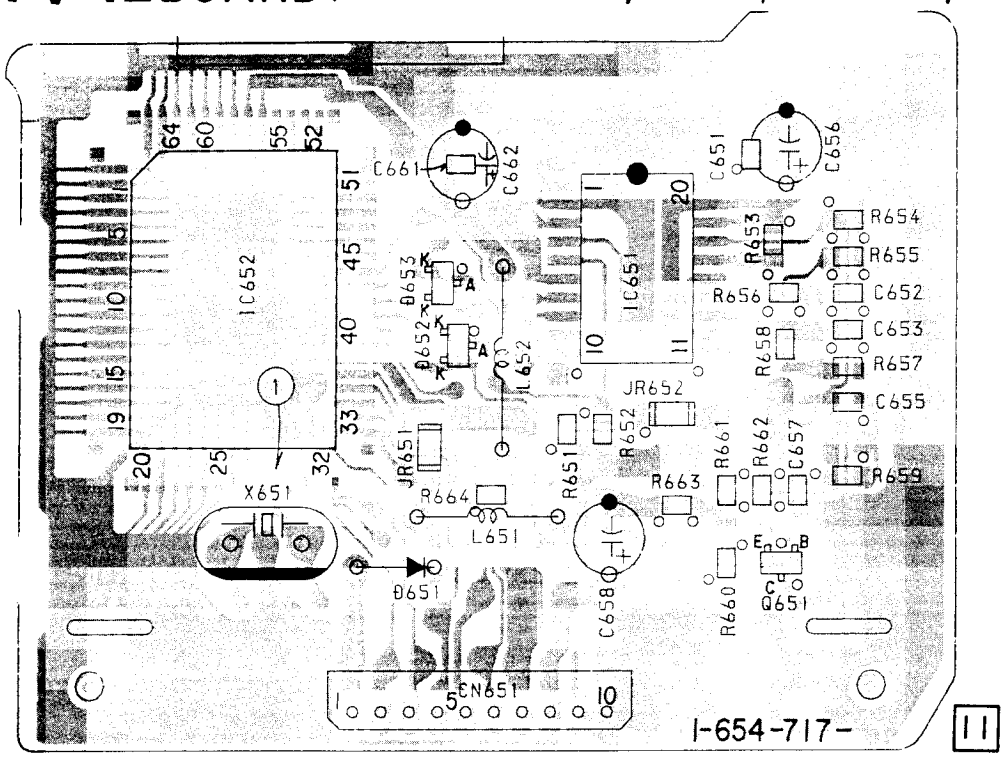


• Signal path

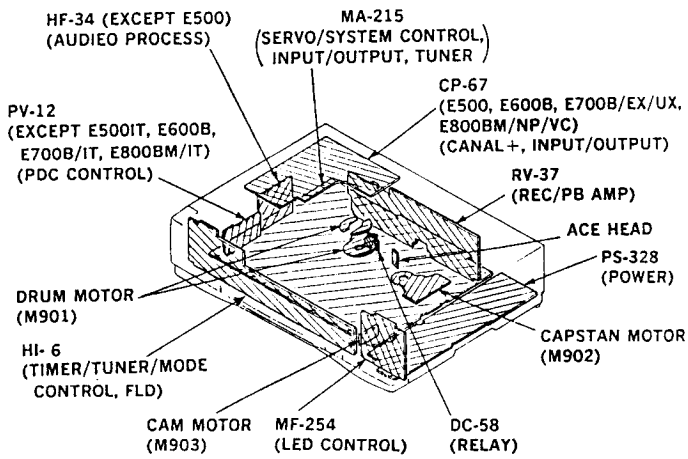
	AUDIO Signal
REC	➡
PB	⇨

PV-12 (PDC CONTROL) PRINTED WIRING BOARD
— Ref. No. PV-12 BOARD : 3,000 series —

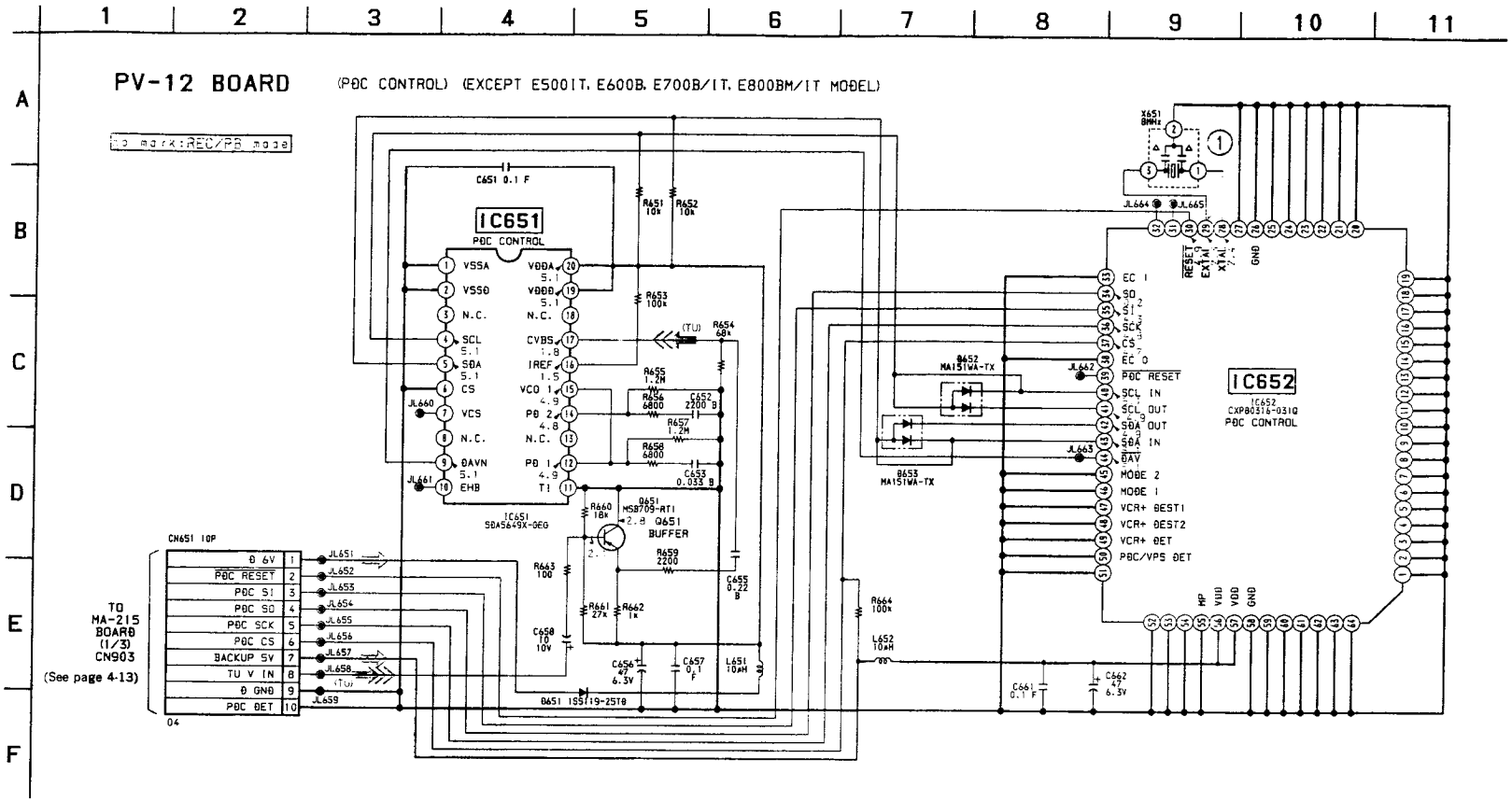
PV-12 BOARD (EXCEPT E500IT,E600B,E700B/IT,E800BM/IT MODEL)

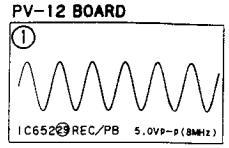


04



PV-12 (PDC CONTROL) SCHEMATIC DIAGRAM
— Ref. No. PV-12 BOARD : 3,000 series —

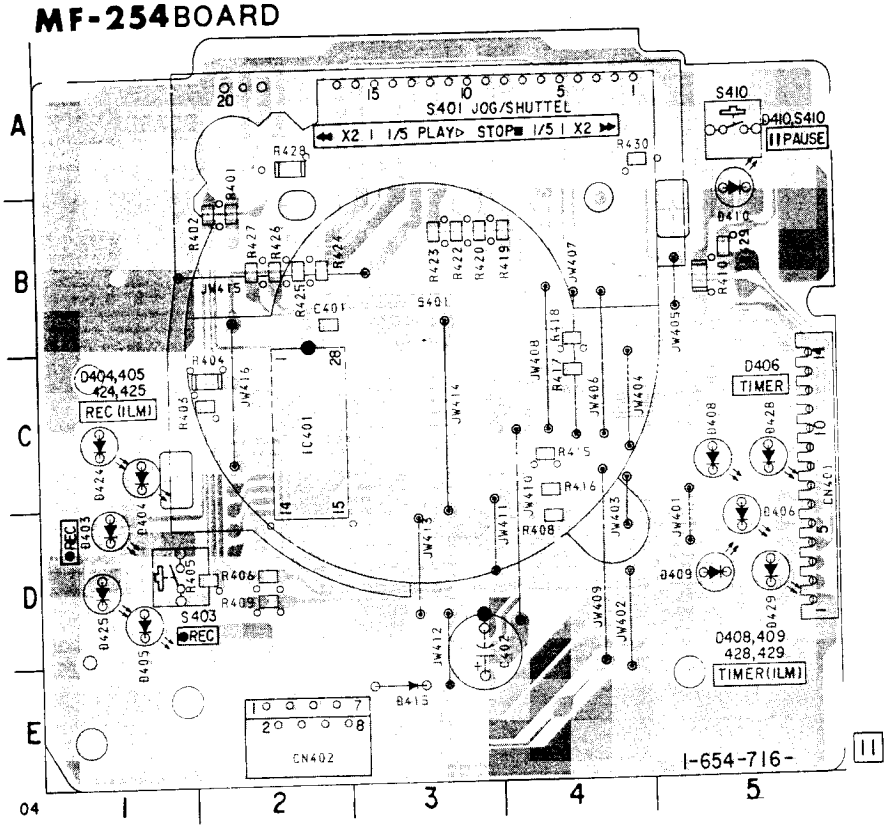




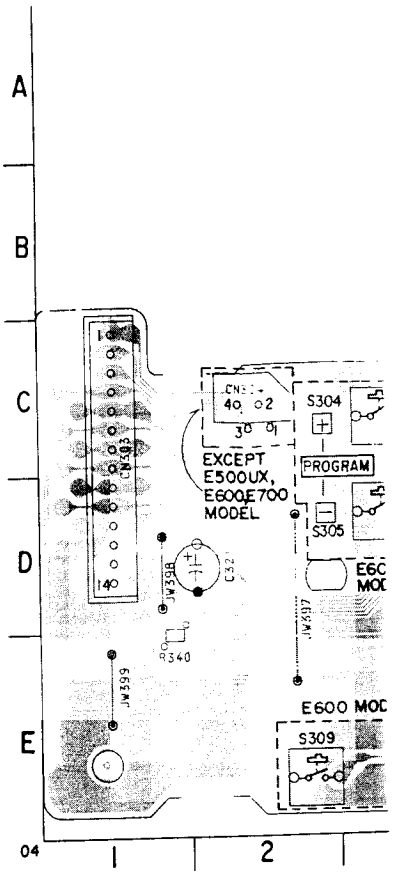
HI-6 (TIMER/TUNER/MODE CONTROL) MF-254 (LED CONTROL) PRINTED WIRING BOARD

— Ref. No. HI-6 BOARD, MF-254 BOARD BOARD : 3,000 series —

MF-254 BOARD



HI-6 BOARD

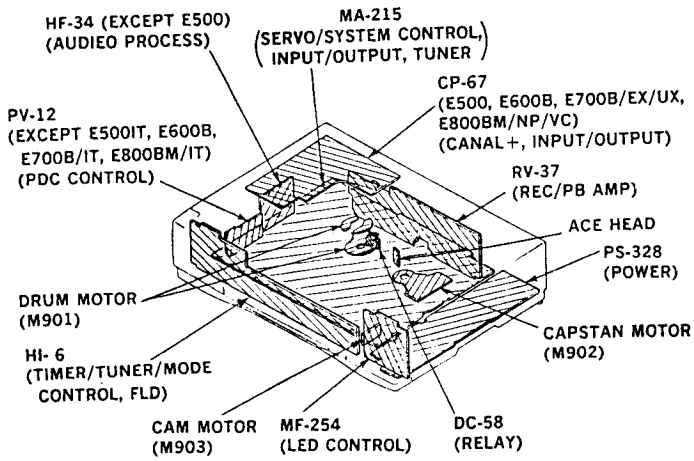


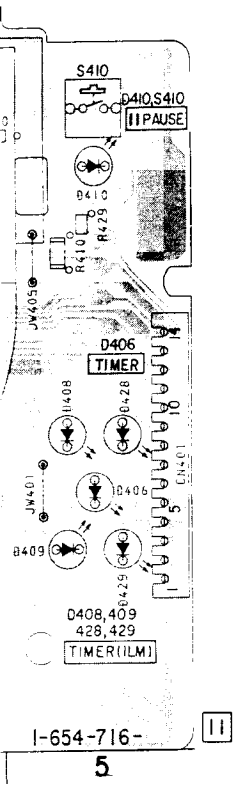
MF-254 BOARD

CN401	C-5
CN402	E-2
D403	D-1
D404	C-1
D405	D-1
D406	D-5
D408	C-5
D409	D-5
D410	B-5
D415	E-3
D424	C-1
D425	D-1
D428	C-5
D429	D-5
IC401	C-2

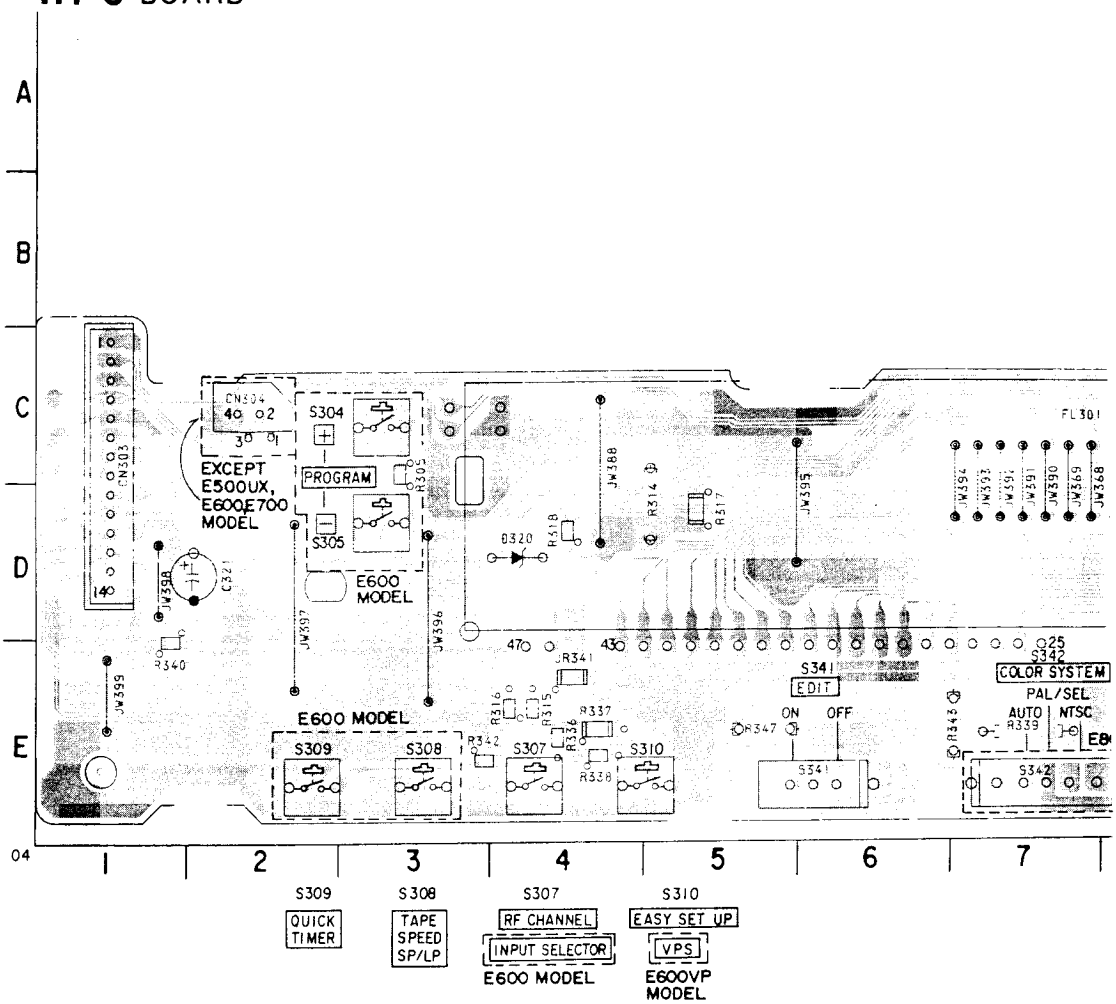
HI-6 BC

CN301	
CN302	
CN303	
CN304	
CN305	
D301	
D302	
D303	
D304	
D312	
D320	





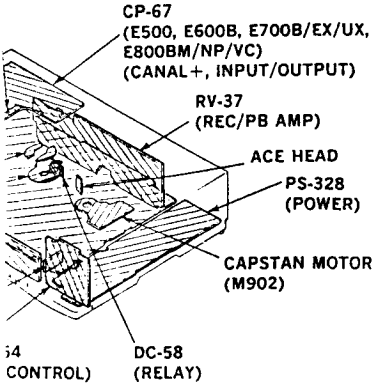
HI-6 BOARD



HI-6 BOARD

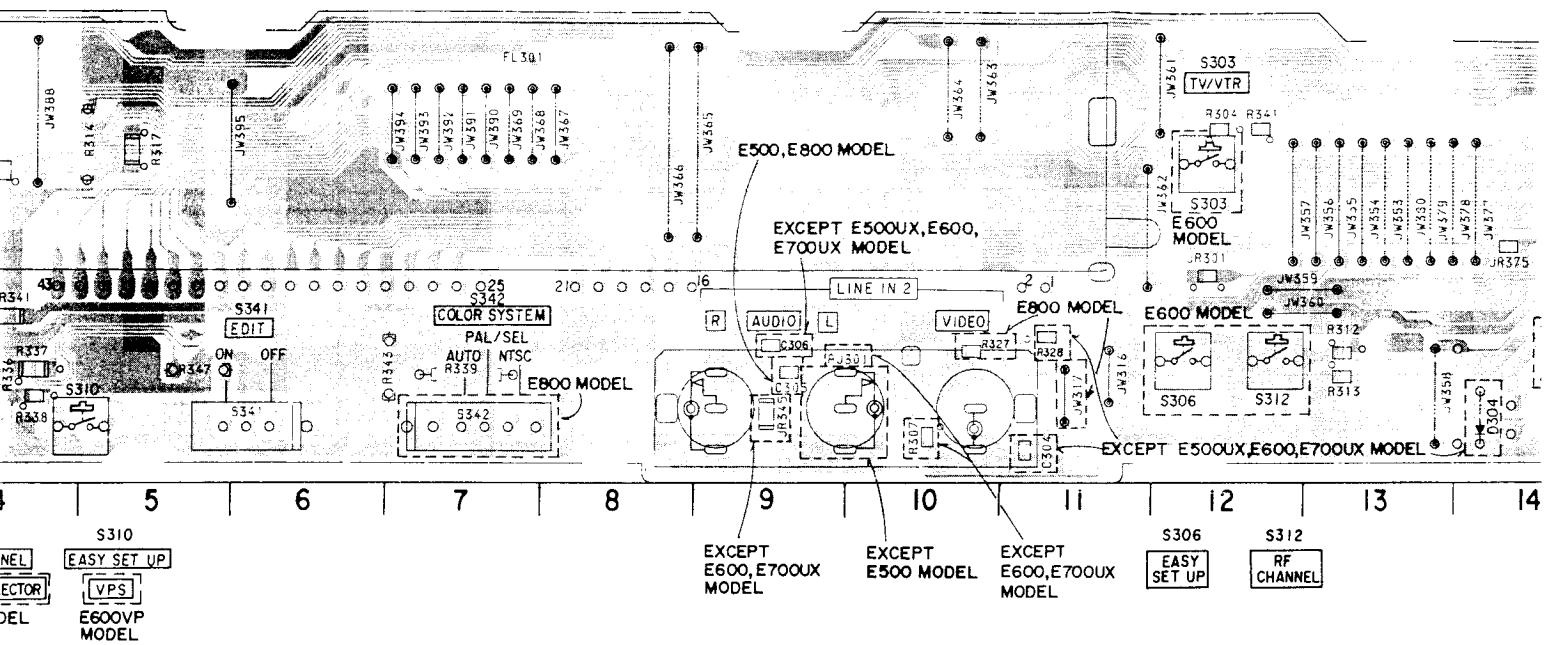
CN301	A-18	IC301	D-15
CN302	B-16	IC302	C-16
CN303	C-1	IC303	D-18
CN304	C-2		
CN305	B-18	Q301	B-18
		Q302	B-18
D301	A-19		
D302	A-18		
D303	A-18		
D304	E-14		
D312	B-19		
D320	D-4		

MA-215
/SYSTEM CONTROL,
T/OUTPUT, TUNER



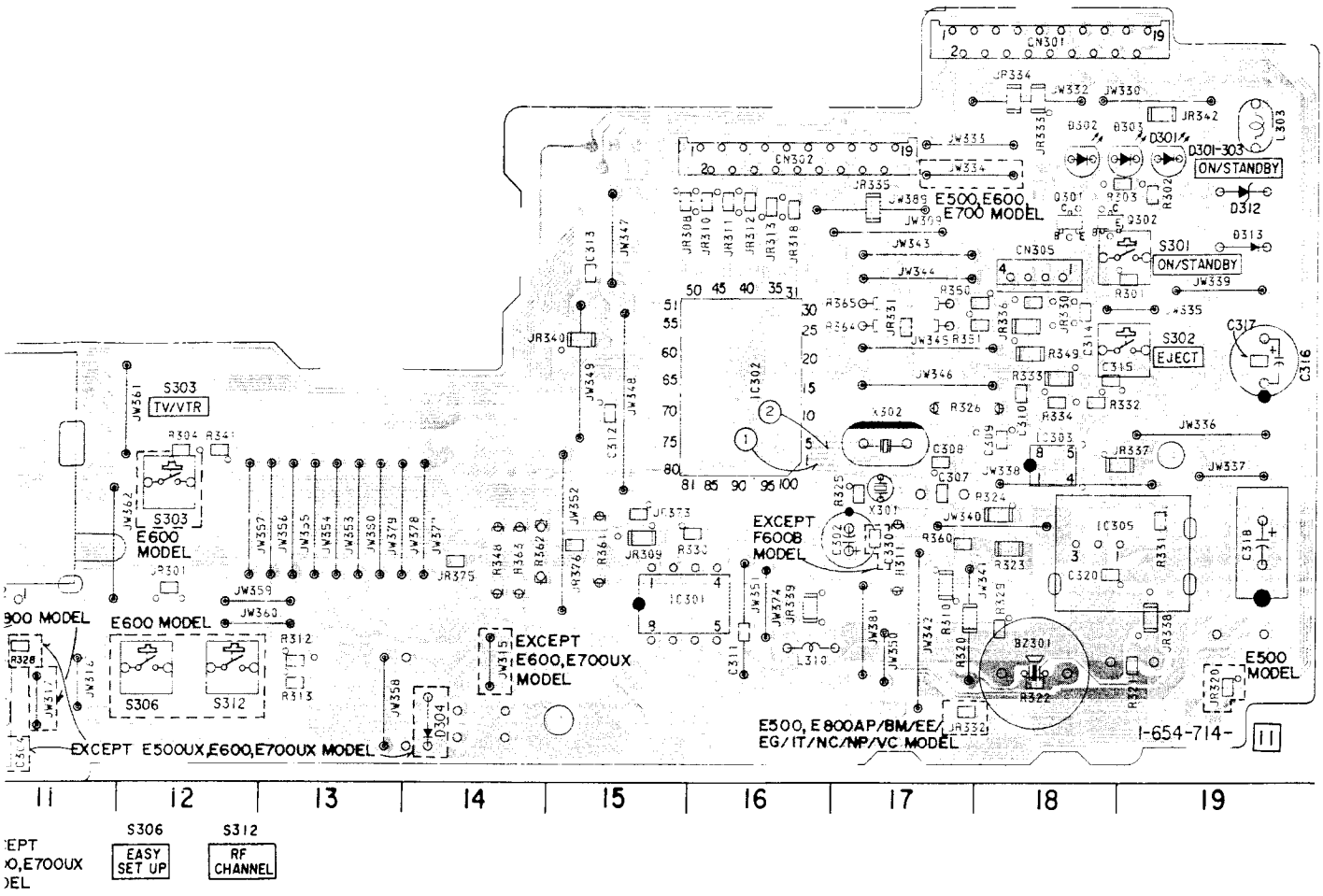
54
CONTROL)

'ROL



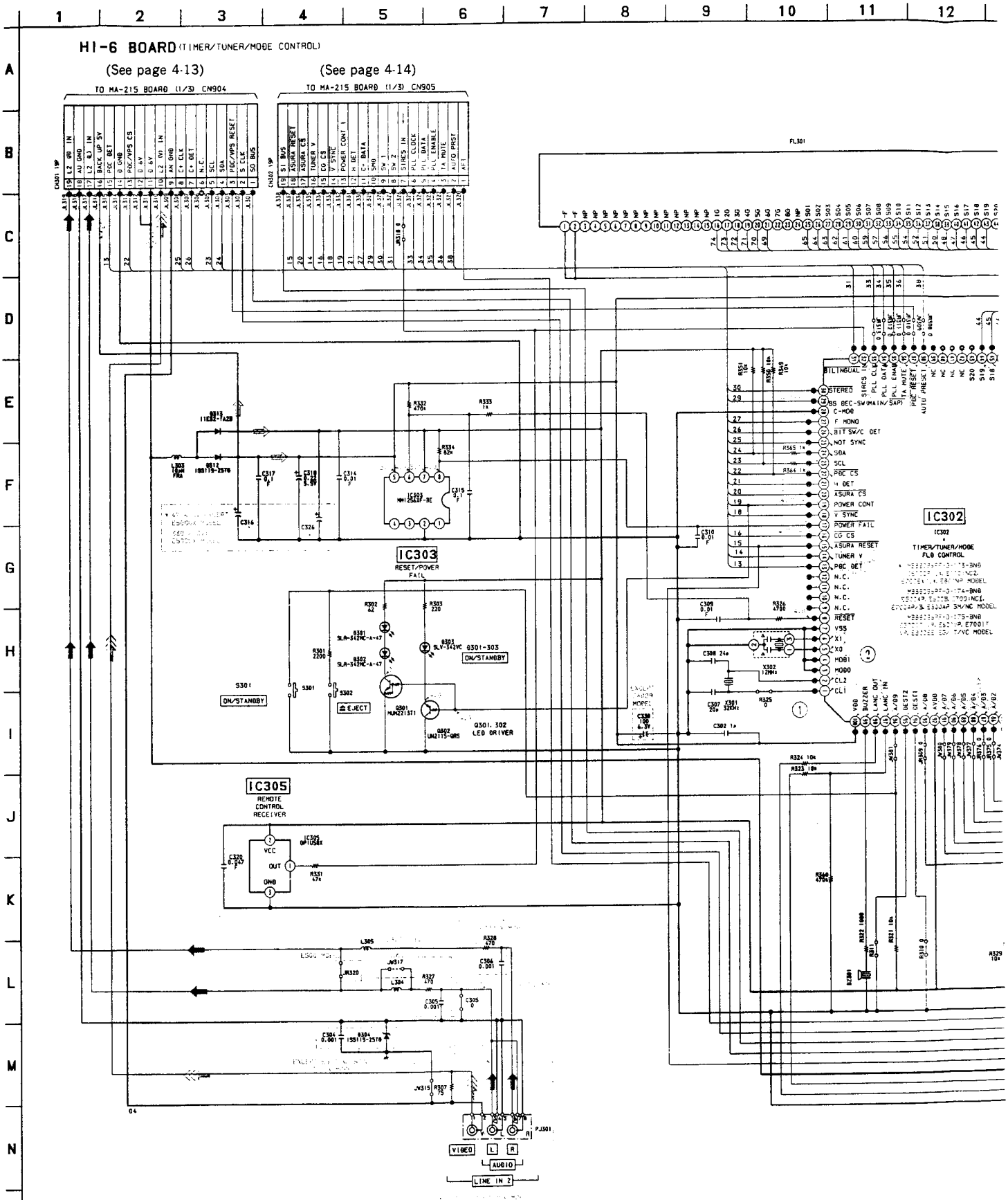
D-15
C-16
D-18

B-18
B-18


S303
TV/VTR
E600
MODEL
S303
E600 MODEL
S306
S312
EXCEPT E500UX,E600,E700UX MODEL
EXCEPT
E600,E700UX
MODEL
EXCEPT
F600B
MODEL
E500,E600
E700 MODEL
S301
ON/STANDBY
D301-303
ON/STANDBY
D312
S302
EJECT
E500
MODEL
E500, E800AP/BM/EE/
EG/IT/NC/NP/VC MODEL
1-654-714-
11
12
13
14
15
16
17
18
19
S306
EASY
SET UP
S312
RF
CHANNEL

HI-6 (TIMER/TUNER/MODE CONTROL) MF-254 (LED CONTROL) SCHEMATIC DIAGRAM

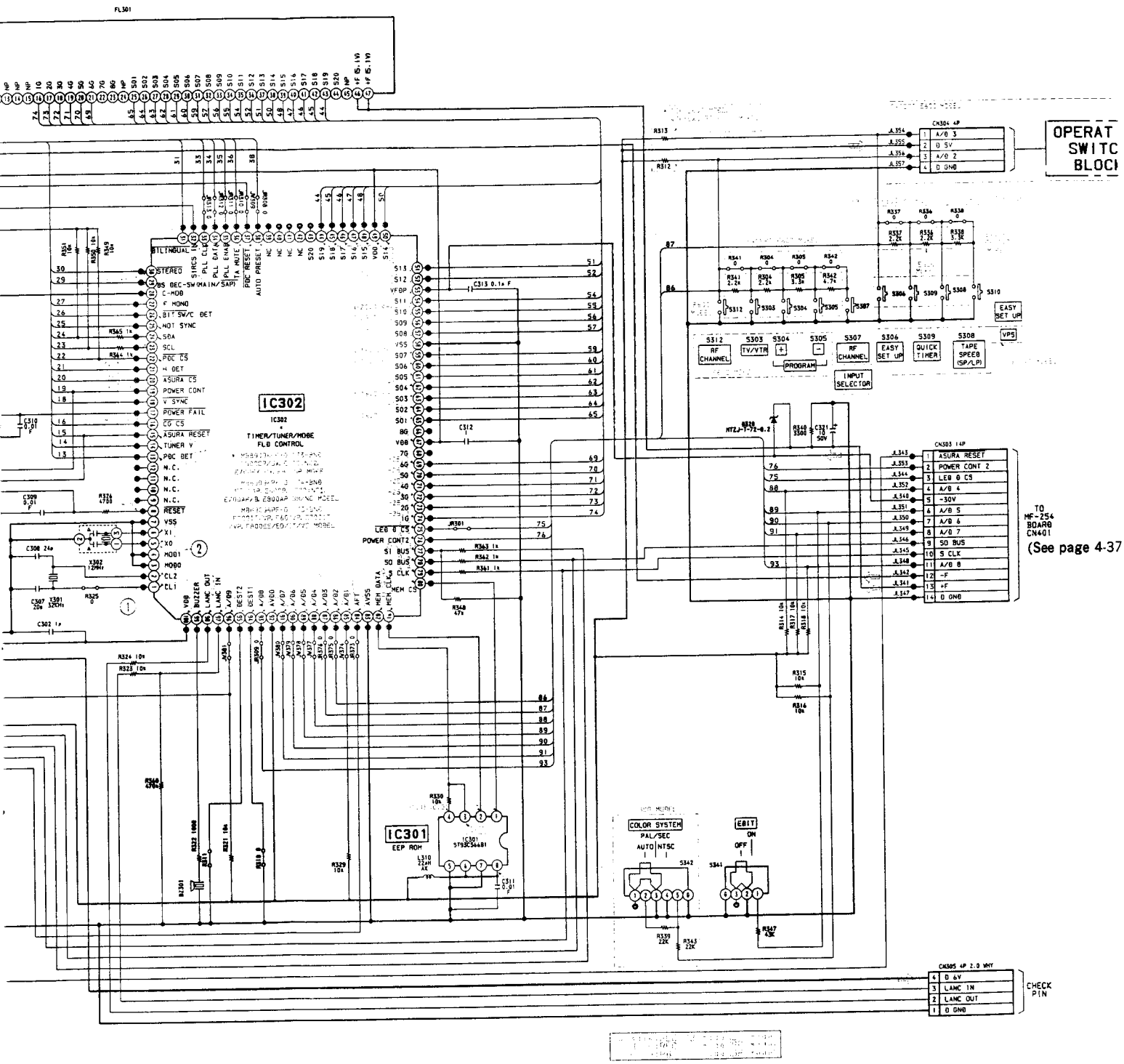
— Ref. No. HI-6 BOARD, MF-254 BOARD : 3,000 series — • Operating switch block is replaced as block, so that printed v



AGRAM

ock is replaced as block, so that printed wiring board and schematic diagram is omitted.

9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21



• **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡	➡

ted.

17 | 18 | 19 | 20 | 21 | 22

1

A

B

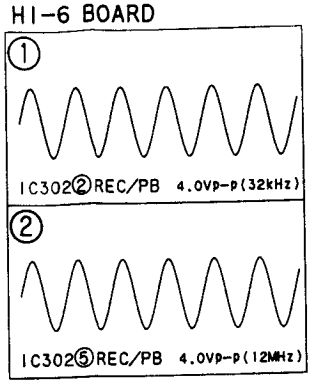
C

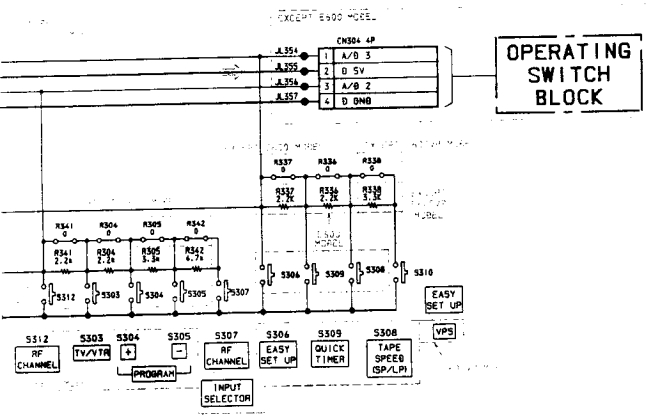
D

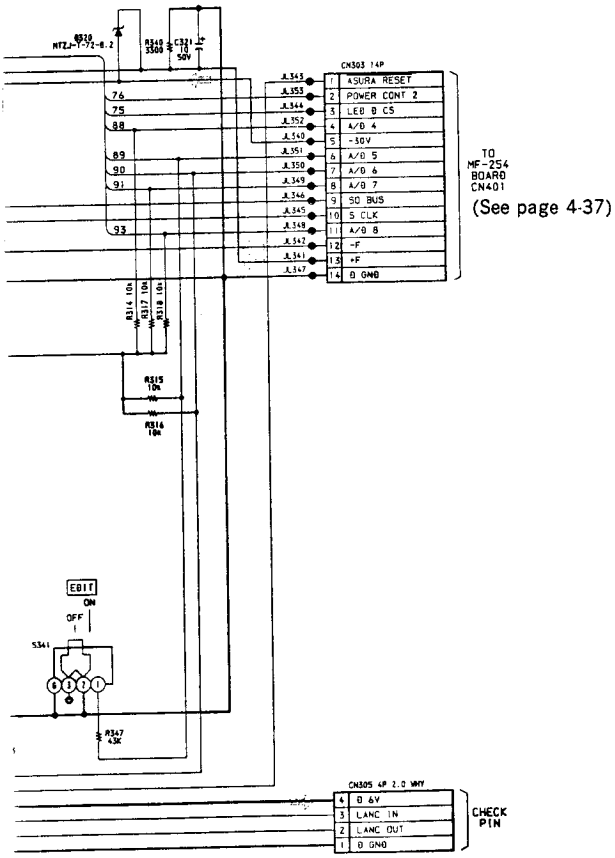
E

F

HI-6 BOARD



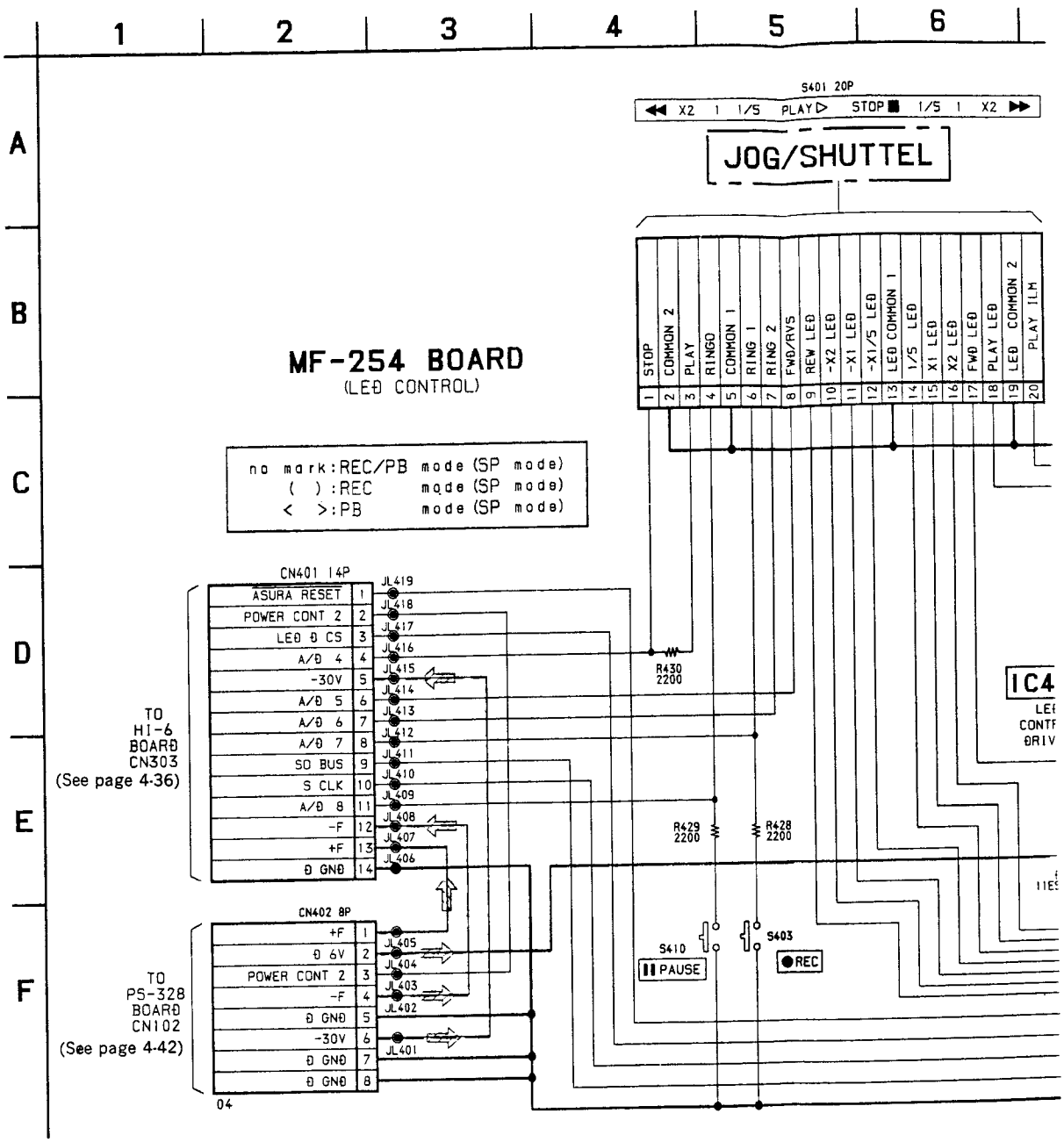


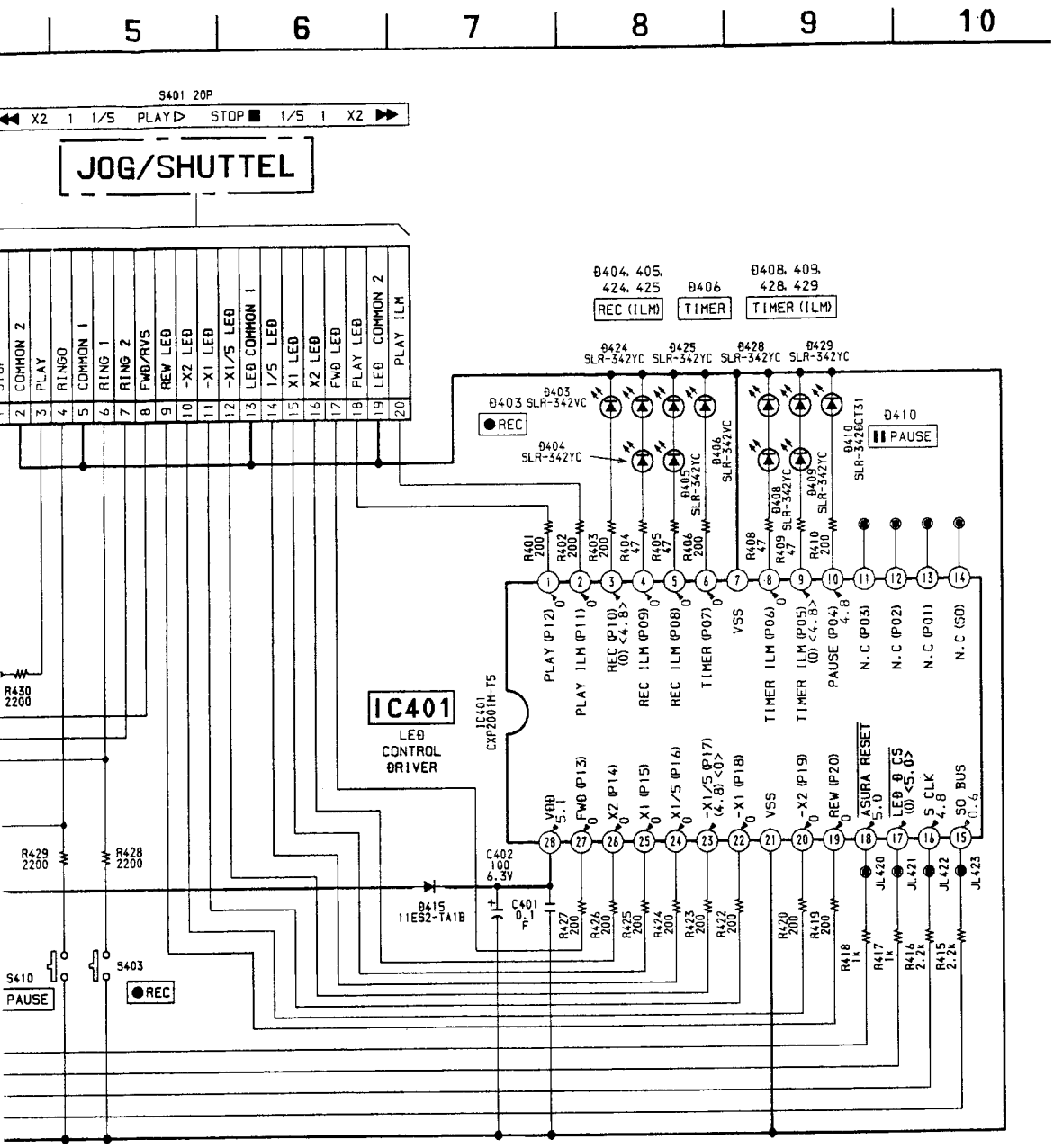


AUDIO Signal

T
HI
BOA
CN2
(See page 4-

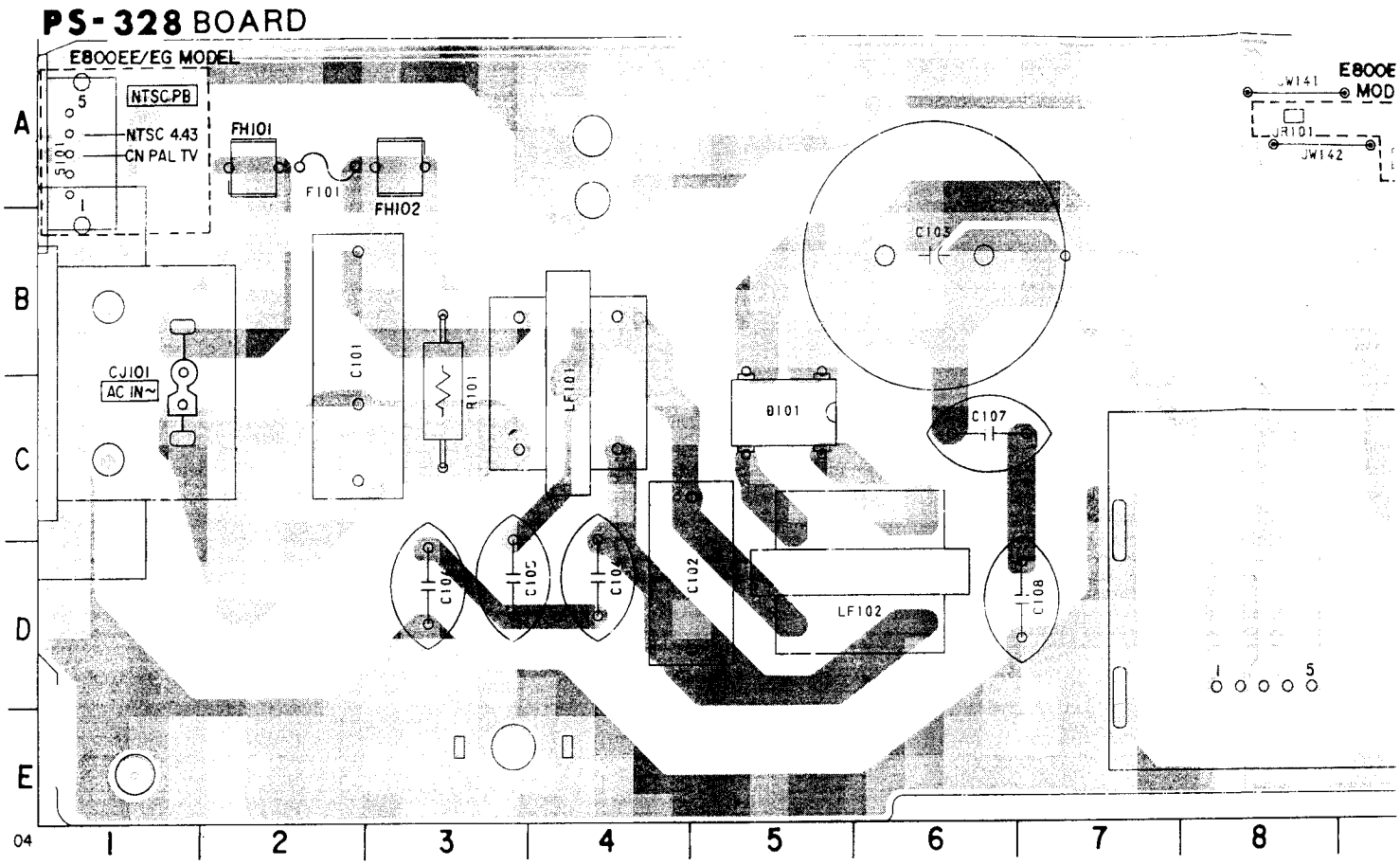
T
PS-
BOA
CN1
(See page 4-

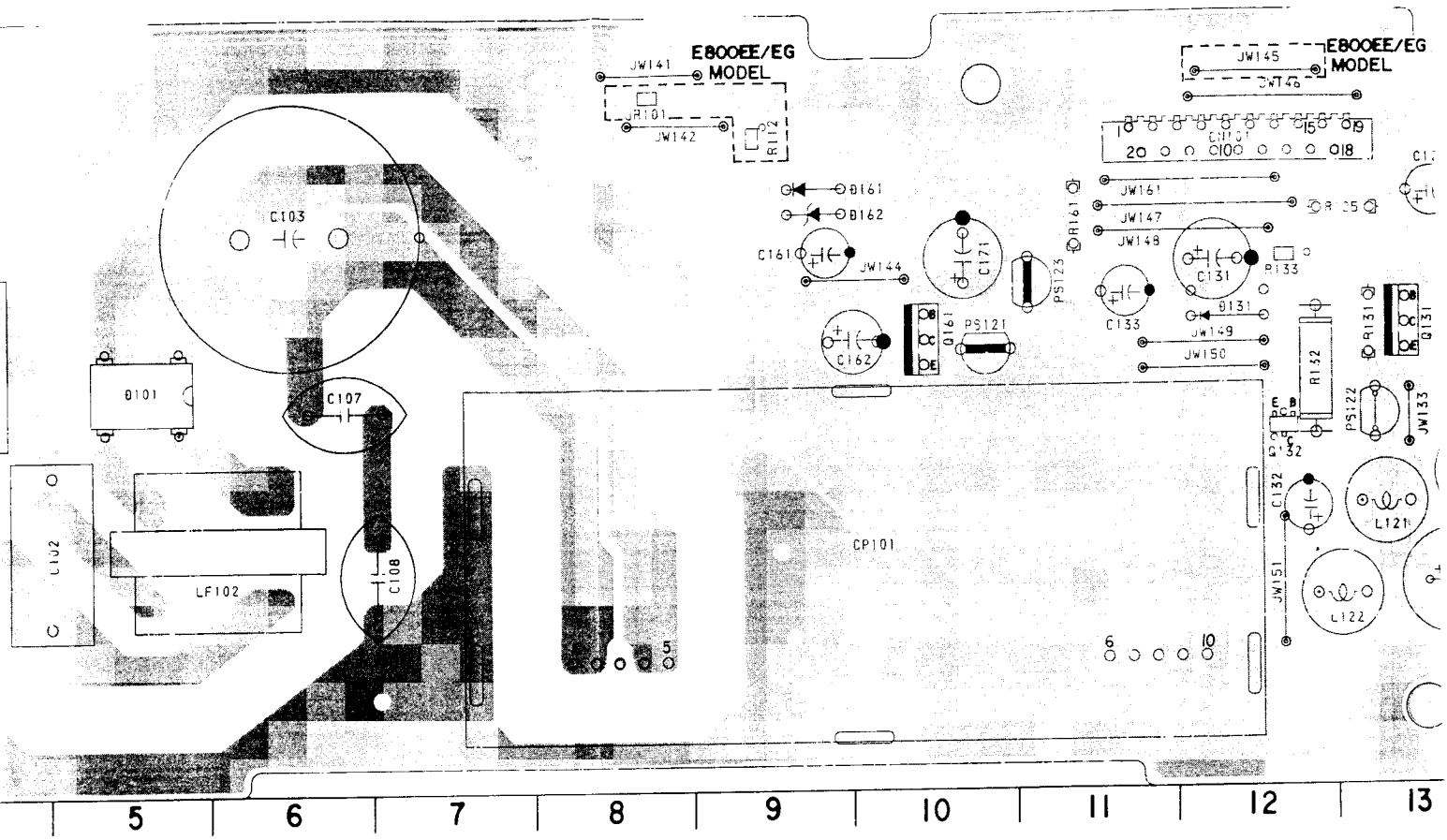

1
2
3
4
5
6
A
B
C
D
E
F
S401 20P
◀◀ X2 1 1/5 PLAY ▷ STOP ■ 1/5 1 X2 ▶▶
JOG/SHUTTEL
MF-254 BOARD
(LED CONTROL)
no mark:REC/PB mode (SP mode)
( ):REC mode (SP mode)
< >:PB mode (SP mode)
1 STOP
2 COMMON 2
3 PLAY
4 RING0
5 COMMON 1
6 RING 1
7 RING 2
8 FWD/RVS
9 REW LED
10 -X2 LED
11 -X1 LED
12 -X1/5 LED
13 LED COMMON 1
14 1/5 LED
15 X1 LED
16 X2 LED
17 FWD LED
18 PLAY LED
19 LED COMMON 2
20 PLAY ILM
CN401 14P
ASURA RESET 1 JL419
POWER CONT 2 2 JL418
LED D CS 3 JL417
A/D 4 4 JL416
-30V 5 JL415
A/D 5 6 JL414
A/D 6 7 JL413
A/D 7 8 JL412
SO BUS 9 JL411
S CLK 10 JL410
A/D 8 11 JL409
-F 12 JL408
+F 13 JL407
D GND 14 JL406
TO HI-6 BOARD CN303 (See page 4-36)
CN402 8P
+F 1 JL405
D 6V 2 JL404
POWER CONT 2 3 JL403
-F 4 JL402
D GND 5
-30V 6 JL401
D GND 7
D GND 8
TO PS-328 BOARD CN102 (See page 4-42)
04
R430 2200
R429 2200
R428 2200
S410
PAUSE
S403
REC
IC4

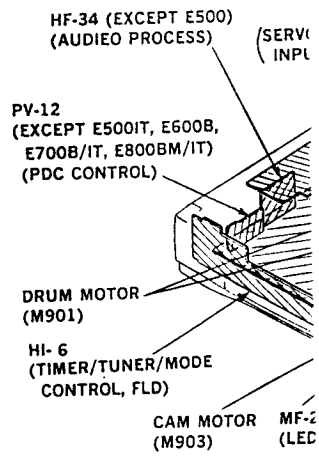

5
6
7
8
9
10
S401 20P
X2 1 1/5 PLAY STOP 1/5 1 X2
JOG/SHUTTEL
IC401
LED CONTROL DRIVER
D404, 405, 424, 425 REC (ILM)
D406 TIMER
D408, 409, 428, 429 TIMER (ILM)
D403 SLR-342YC
REC
D404 SLR-342YC
D410
PAUSE
S410 PAUSE
S403 REC
D415 1ES2-TA1B
C402 100 6.3V
C401 0.1

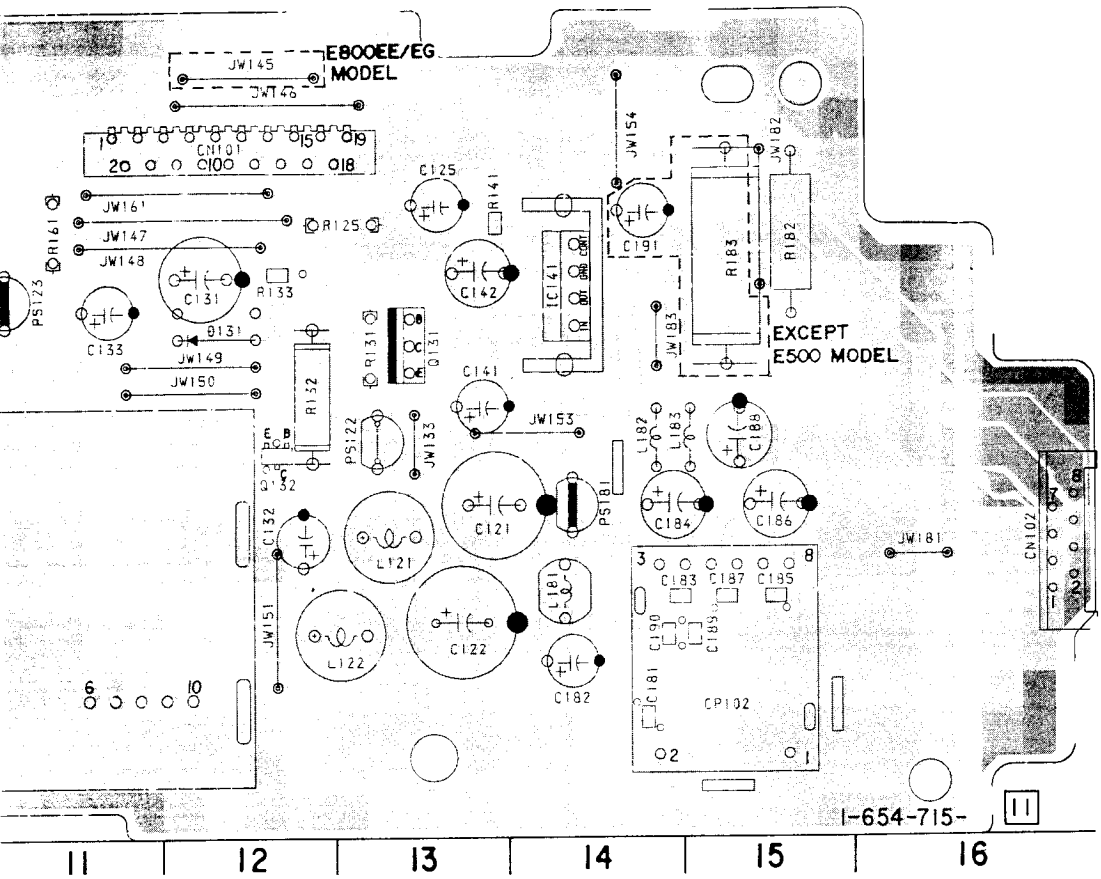
PS-328 (POWER) PRINTED WIRING BOARD

— Ref. No. PS-328 BOARD : 3,000 series —




E800EE/EG
MODEL
JW141
JW142
R101
R112
E800EE/EG
MODEL
JW145
JW146
D161
D162
C161
JW144
C171
PS123
R161
JW161
JW147
JW148
C131
R133
C133
D131
JW149
JW150
C162
Q161
PS121
R131
Q131
R132
PS122
JW133
C132
L121
L122
JW151
D101
C107
C103
L102
LF102
C108
CP101
5
6
10
5
6
7
8
9
10
11
12
13

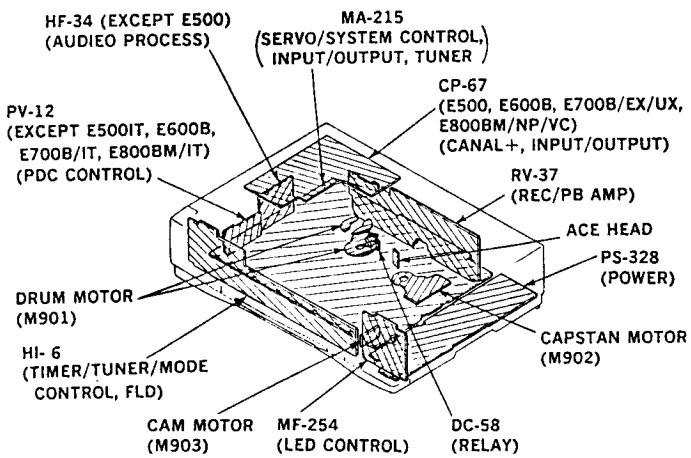

HF-34 (EXCEPT E500)
(AUDIEO PROCESS)
PV-12
(EXCEPT E500IT, E600B,
E700B/IT, E800BM/IT)
(PDC CONTROL)
DRUM MOTOR
(M901)
HI- 6
(TIMER/TUNER/MODE
CONTROL, FLD)
CAM MOTOR
(M903)



PS-328 BOARD

CN101	B-12
CN102	C-16
D101	C-5
D131	B-12
D161	B-9
D162	B-9
IC141	B-14
Q131	B-13
Q132	D-12
Q161	C-10

A
B
C
D
E
F
G



PS-328 (POWER) SCHEMATIC DIAGRAM

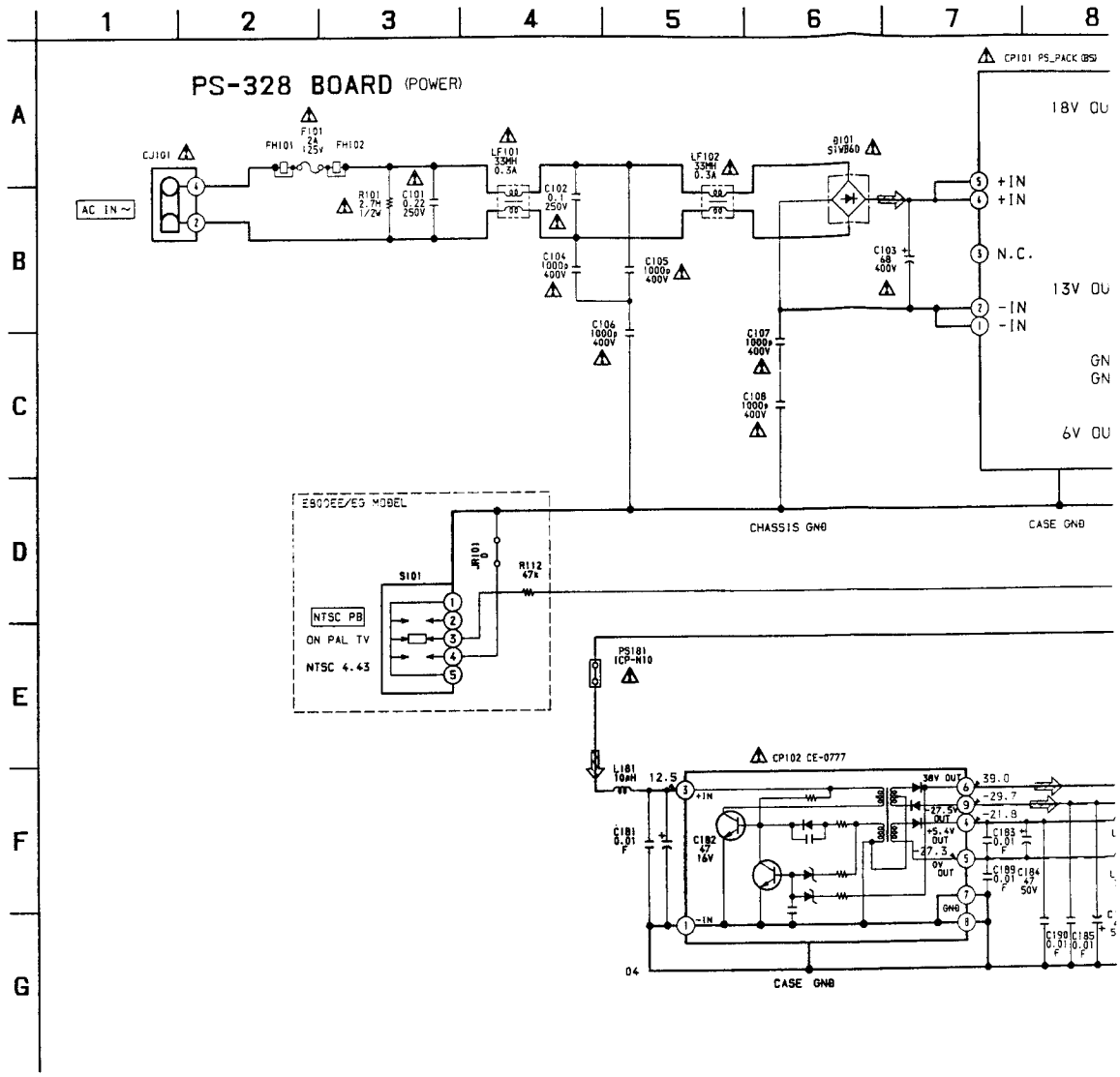
— Ref. No. PS-328 BOARD : 3,000 series —

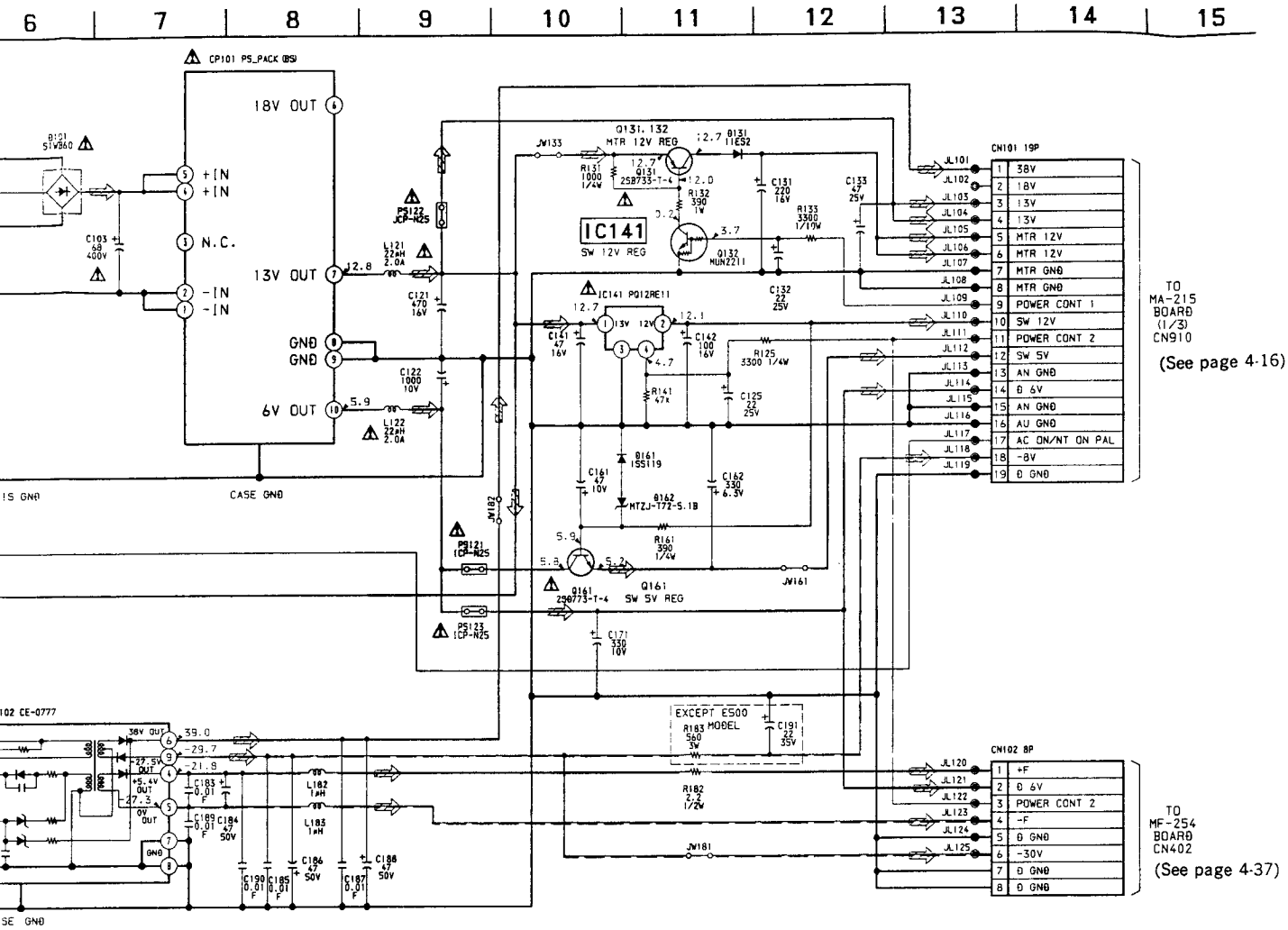
PS-328 BOARD
CN101 B-12
CN102 C-16

D101 C-5
D131 B-12
D161 B-9
D162 B-9

IC141 B-14

Q131 B-13
Q132 D-12
Q161 C-10





Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 5
REPAIR PARTS LIST

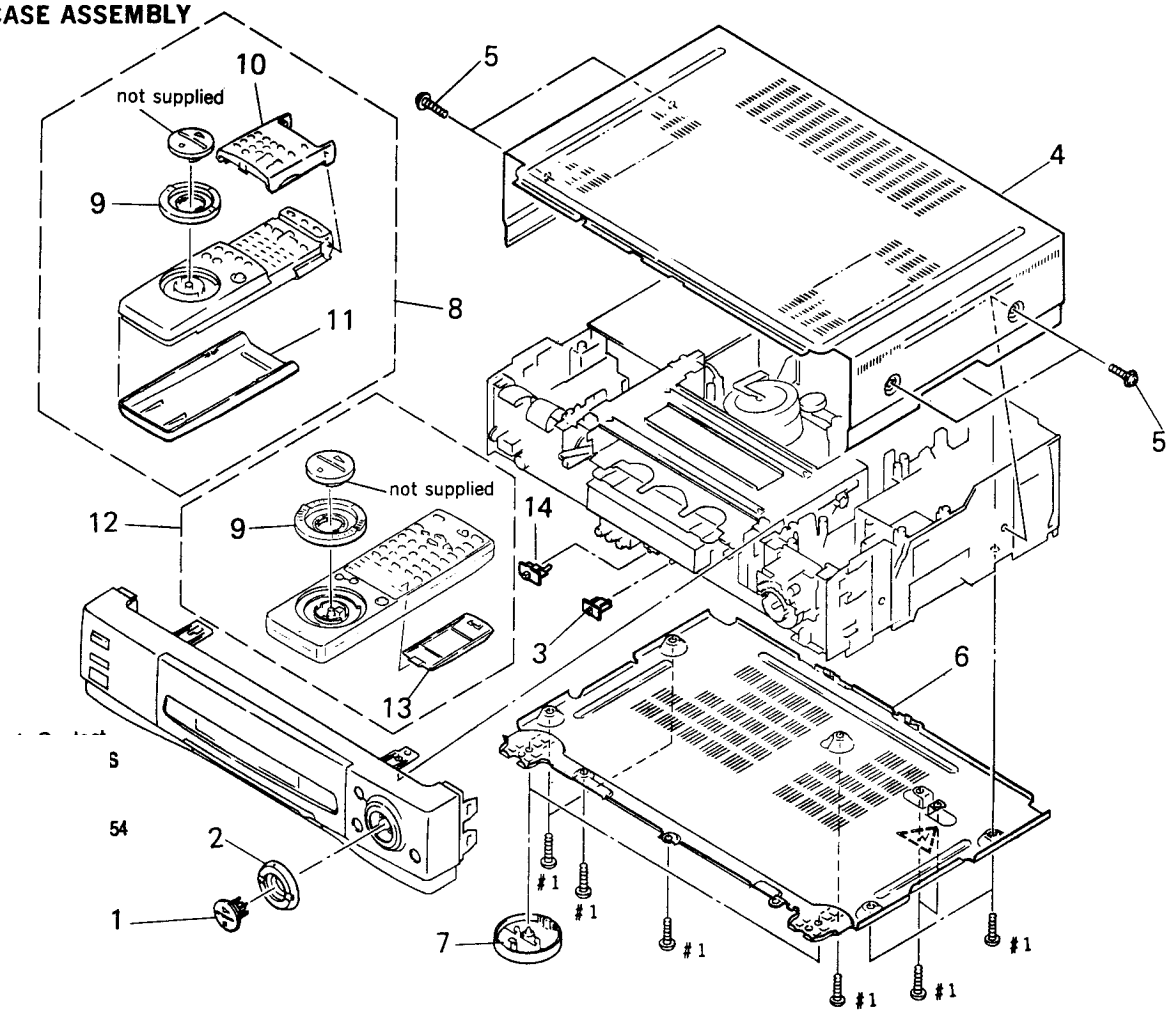
5-1. EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

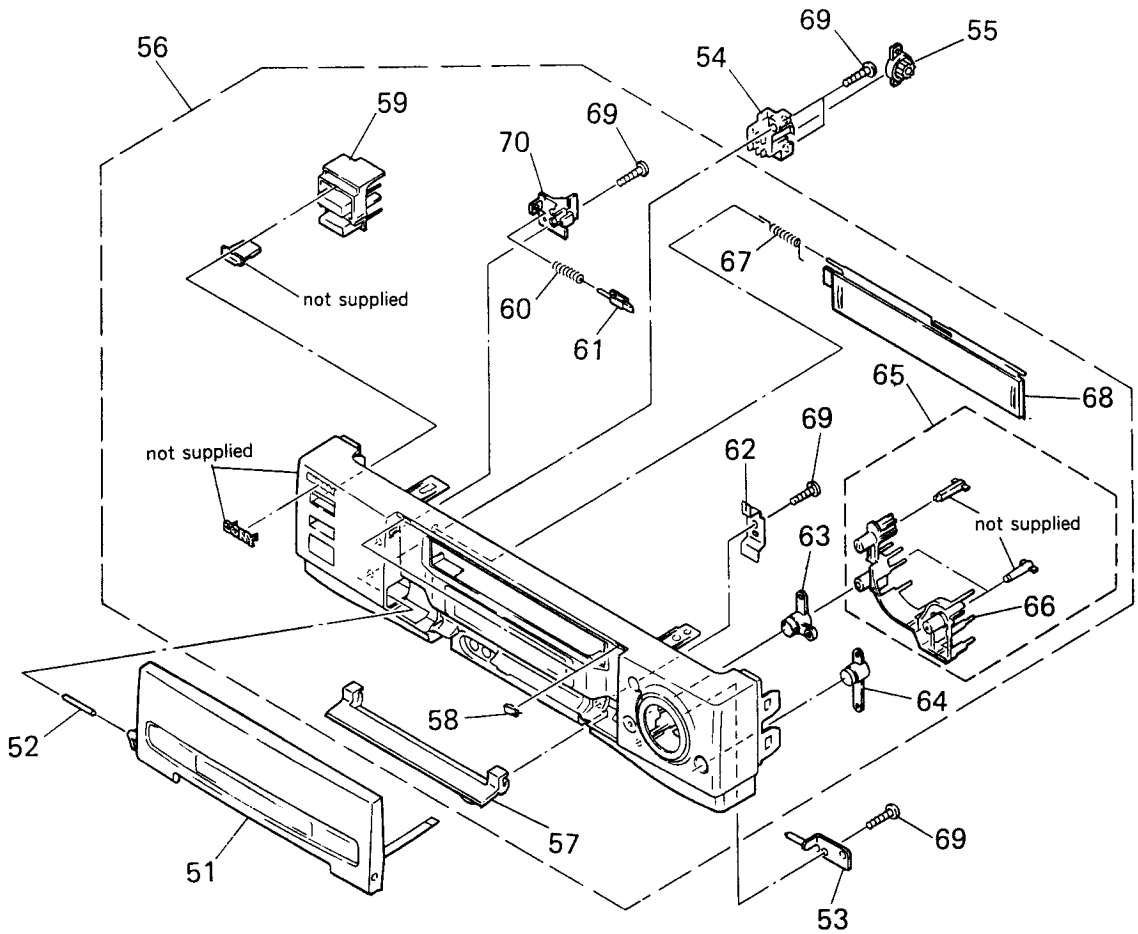
5-1-1. CASE ASSEMBLY



Ref. No.	Part No.	Description	Remark
1	X-3944-376-1	BUTTON ASSY, FUNCTION (EXCEPT E600B, E700B, E800BM)	
1	X-3944-612-1	BUTTON ASSY, FUNCTION (E600B, E700B, E800BM)	
2	X-3944-380-1	RING ASSY, SHUTTLE	
3	3-743-636-01	KNOB, SLIDE (E600B/VP)	
3	3-960-080-11	KNOB (3P), SLIDE (EXCEPT E600B/VP)	
4	3-960-467-02	CASE, UPPER	
5	3-710-901-11	SCREW (TP3X8), CASE	
6	3-960-410-01	PLATE, BOTTOM	
7	3-960-062-11	INSULATOR	
8	1-467-950-11	REMOTE COMMANDER (RMT-V159D) (E600B, E700B)	
8	1-467-950-21	REMOTE COMMANDER (RMT-V159B) (E600VP, E700:NC1/NC2, E700AP/VP)	
8	1-467-950-31	REMOTE COMMANDER (RMT-V159A) (E800BM)	
8	1-467-950-41	REMOTE COMMANDER (RMT-V159) (E800AP/EE/EG/NC/NP/VC)	
8	1-467-950-51	REMOTE COMMANDER (RMT-V159E) (E500AP/CP/VP)	
8	1-467-954-11	REMOTE COMMANDER (RMT-V159J) (E700IT)	
8	1-467-954-21	REMOTE COMMANDER (RMT-V159H) (E800IT)	
8	1-467-954-31	REMOTE COMMANDER (RMT-V159K) (E500IT)	
9	3-957-513-11	RING, SHUTTLE	
10	3-708-969-01	COVER, REMOTE CONTROL (EXCEPT E500UX, E600B, E700B/EX/UX, E800BM)	
10	3-708-970-01	COVER, REMOTE CONTROL (E600B, E700B, E800BM)	
11	3-708-816-21	COVER, SLIDE (EXCEPT E500UX, E700EX/UX)	
12	1-467-965-11	REMOTE COMMANDER (RMT-V163) (E700EX/UX)	
12	1-467-965-21	REMOTE COMMANDER (RMT-V163A) (E500UX)	
13	3-708-817-01	COVER, BATTERY (E500UX, E700EX/UX)	
14	3-743-636-01	KNOB, SLIDE (E600)	

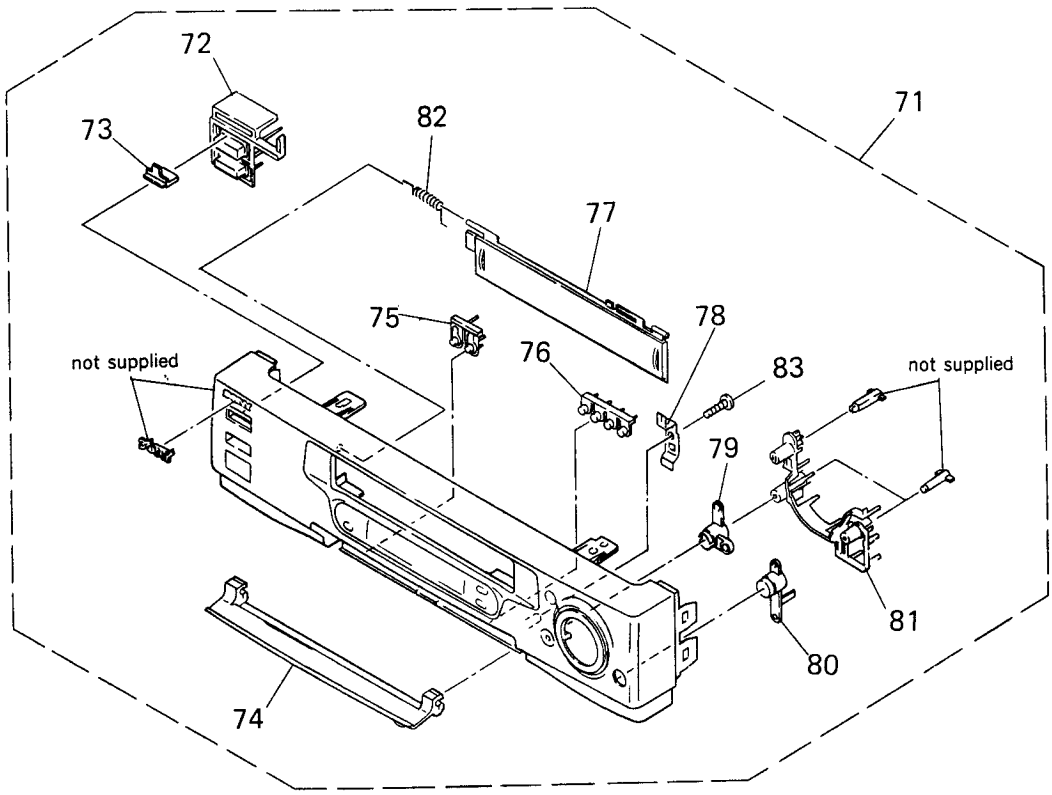
5-1-2. FRONT PANEL ASSEMBLY

EXCEPT SLV-E600B/VP MODEL



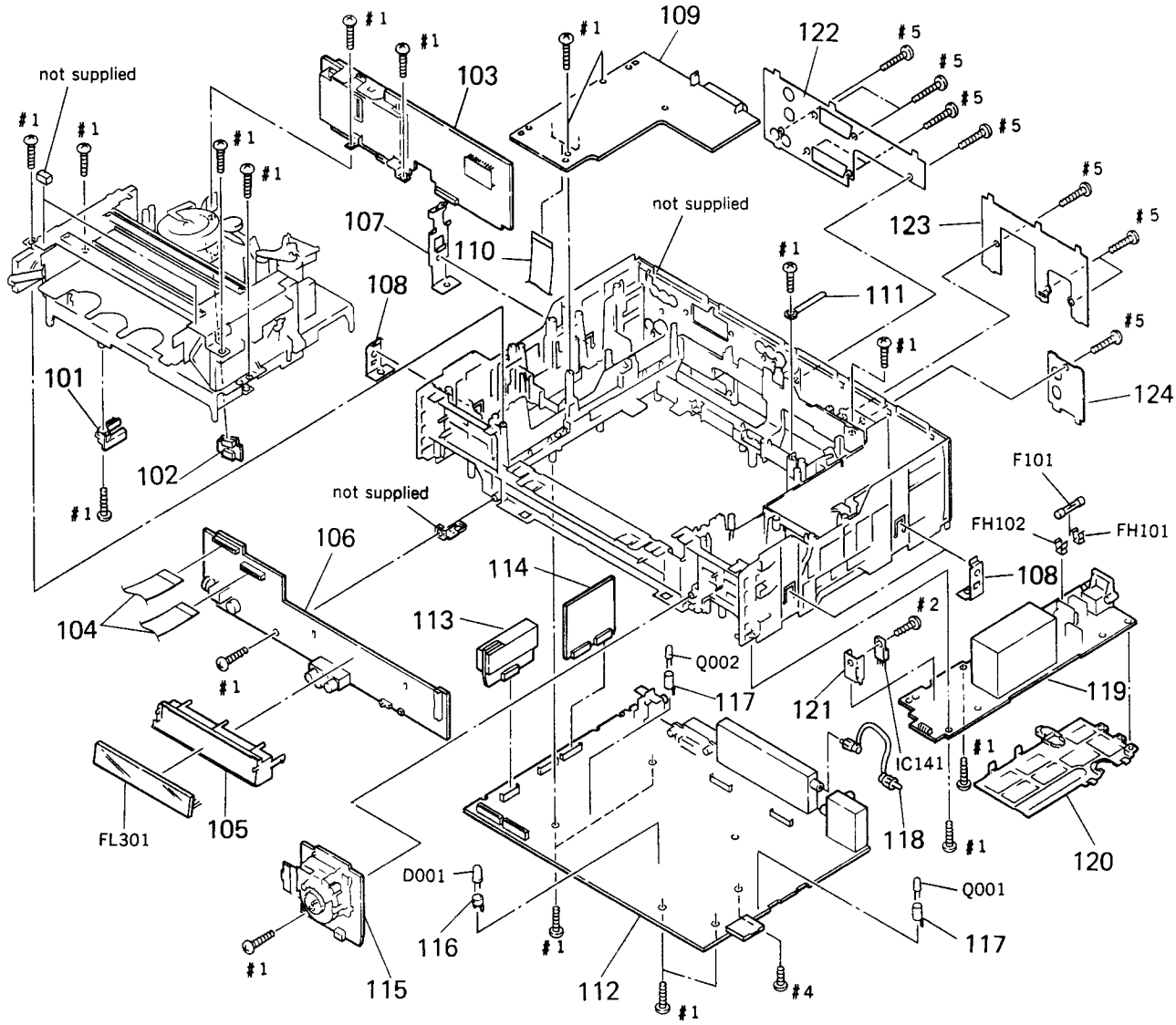
Ref. No.	Part No.	Description	Remark
51	1-467-945-11	SWITCH BLOCK, CONTROL (E800VC)	
51	1-467-945-21	SWITCH BLOCK, CONTROL (E800BM)	
51	1-467-945-31	SWITCH BLOCK, CONTROL (E800NP)	
51	1-467-945-41	SWITCH BLOCK, CONTROL (E800NC)	
51	1-467-945-51	SWITCH BLOCK, CONTROL (E800AP)	
51	1-467-945-71	SWITCH BLOCK, CONTROL (E800EE/EG)	
51	1-467-945-81	SWITCH BLOCK, CONTROL (E800IT)	
51	1-467-945-91	SWITCH BLOCK, CONTROL (E700EX/UX)	
51	1-467-946-11	SWITCH BLOCK, CONTROL (E500UX)	
51	1-467-946-21	SWITCH BLOCK, CONTROL (E500VP)	
51	1-467-946-31	SWITCH BLOCK, CONTROL (E500AP)	
51	1-467-946-41	SWITCH BLOCK, CONTROL (E700B)	
51	1-467-946-51	SWITCH BLOCK, CONTROL (E500CP)	
51	1-467-946-61	SWITCH BLOCK, CONTROL (E500IT)	
51	1-467-946-71	SWITCH BLOCK, CONTROL (E700:NC1/NC2)	
51	1-467-946-81	SWITCH BLOCK, CONTROL (E700IT/VP)	
51	1-473-003-11	SWITCH BLOCK, CONTROL (E700AP)	
* 52	3-960-077-11	SHAFT (LEFT), FULCRUM	
53	X-3944-614-1	PLATE (RIGHT) ASSY, FULCRUM	
* 54	3-960-076-11	PLATE (LEFT), FULCRUM, DOOR	
55	3-961-745-01	DAMPER, OIL	
56	X-3944-626-1	PANEL ASSY, FRONT (E700:NC1/NC2, E700AP/EX/IT/UX/VP)	
56	X-3944-631-1	PANEL ASSY, FRONT (E700B)	
56	X-3944-803-1	PANEL ASSY, FRONT (E800AP/IT/NC/NP/VC)	
56	X-3944-811-1	PANEL ASSY, FRONT (E800BM)	
56	X-3944-812-1	PANEL ASSY, FRONT (E800EE/EG)	
56	X-3944-887-1	PANEL ASSY, FRONT (E500)	
57	3-961-606-01	DOOR, JACK (E800AP/IT/NC/NP/VC)	
57	3-961-606-11	DOOR, JACK (E700:NC1/NC2, E700AP/EX/IT/UX/VP)	
57	3-961-606-21	DOOR, JACK (E700B)	
57	3-961-606-31	DOOR, JACK (E800BM)	
57	3-961-606-41	DOOR, JACK (E800EE/EG)	
57	3-961-606-51	DOOR, JACK (E500)	
58	9-911-839-XX	STOPPER	
59	3-957-389-01	BUTTON, POWER/EJECT	
60	3-957-388-01	SPRING, COMPRESSION	
61	3-944-564-01	CLAW, LOCK	
* 62	3-963-025-01	SPRING, DOOR LOCK	
* 63	3-960-090-11	LENS, TR ILLUMINATION	
* 64	3-960-089-11	LENS, REC ILLUMINATION	
65	X-3944-615-1	TIMER ASSY (A7)	
* 66	3-960-086-01	BASE (L), TR	
67	3-953-432-01	SPRING (GE), FL	
68	3-960-094-31	DOOR, CASSETTE (E700:NC1/NC2, E700AP/EX/IT/UX/VP, E800AP/EE/EG/IT/NC/NP/VC)	
68	3-960-094-41	DOOR, CASSETTE (E700B, E800BM)	
68	3-960-094-61	DOOR, CASSETTE (E500)	
69	4-921-277-41	SCREW (B2.6X8), TAPPING, BIND	
* 70	3-957-312-11	HOLDER, LOCK CLAW (E700)	
* 70	3-957-548-11	HOLDER, LOCK CLAW (E500, E800)	

SLV-E600B/VP MODEL



Ref. No.	Part No.	Description	Remark
71	X-3944-632-1	PANEL ASSY, FRONT (E600B)	
71	X-3944-691-1	PANEL ASSY, FRONT (E600VP)	
72	3-957-237-01	BUTTON, POWER/EJECT	
73	3-946-611-01	TIP, POWER BUTTON	
74	3-960-051-11	DOOR, JACK (E600B)	
74	3-960-051-61	DOOR, JACK (E600VP)	
75	3-961-932-11	BUTTON, RF	
76	3-960-524-01	BUTTON, QUICK TIMER (E600B)	
76	3-960-524-11	BUTTON, QUICK TIMER (E600VP)	
77	3-960-094-01	DOOR, CASSETTE (E600VP)	
77	3-960-094-51	DOOR, CASSETTE (E600B)	
* 78	3-960-556-01	SPRING, DOOR LOCK	
* 79	3-960-090-01	LENS, TR ILLUMINATION	
* 80	3-960-089-01	LENS, REC ILLUMINATION	
* 81	3-960-049-01	BASE, TR	
82	3-953-432-01	SPRING (GE), FL	
83	4-921-277-41	SCREW (B2.6X8), TAPPING, BIND	

5-1-3. CHASSIS ASSEMBLY



Ref. No.	Part No.	Description	Remark
* 101	3-960-067-11	HOLDER, MA	
* 102	A-6794-030-A	DC-58 BOARD, COMPLETE	
* 103	A-6782-402-A	RV-37 BOARD, COMPLETE (E600VP, E700:NC1/NC2, E700AP/EX/IT/UX/VP)	
* 103	A-6782-411-A	RV-37 BOARD, COMPLETE (E600B, E700B)	
* 103	A-6782-460-A	RV-37 BOARD, COMPLETE (E800BM)	
* 103	A-6782-463-A	RV-37 BOARD, COMPLETE (E800AP/IT/NC/NP/VC)	
* 103	A-6782-468-A	RV-37 BOARD, COMPLETE (E800EE/EG)	
* 103	A-6782-513-A	RV-37 BOARD, COMPLETE (E500)	
* 104	1-769-397-11	WIRE, FLAT TYPE 19P	
* 105	3-960-068-11	HOLDER (A), FL	
* 106	A-6782-412-A	HI-6 BOARD, COMPLETE (E600B)	
* 106	A-6782-415-A	HI-6 BOARD, COMPLETE (E700:NC1/NC2, E700B/VP)	
* 106	A-6782-453-A	HI-6 BOARD, COMPLETE (E800NC)	
* 106	A-6782-455-A	HI-6 BOARD, COMPLETE (E800NP)	
* 106	A-6782-457-A	HI-6 BOARD, COMPLETE (E800AP)	

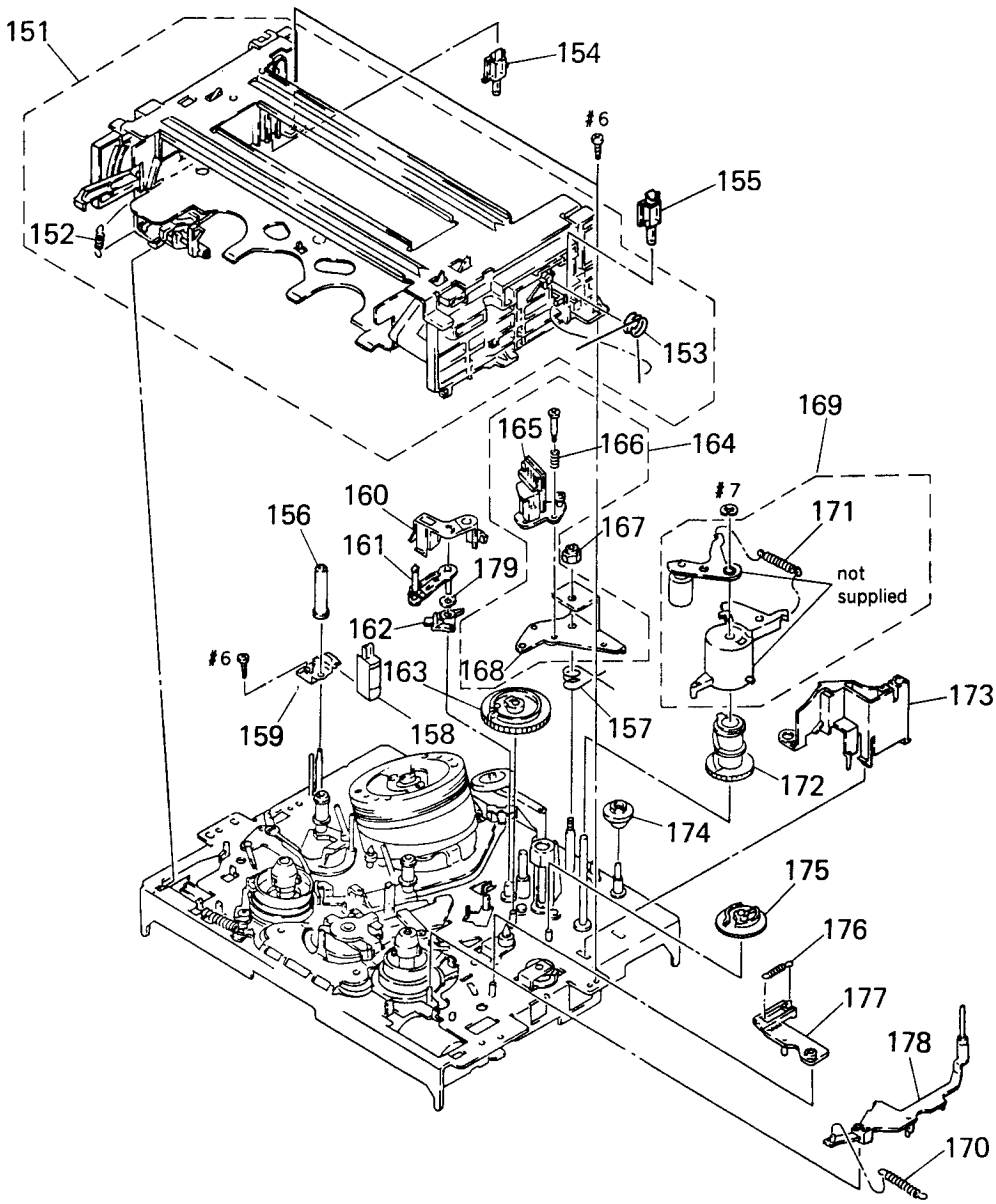
Ref. No.	Part No.	Description	Remark
* 106	A-6782-461-A	HI-6 BOARD, COMPLETE (E800BM)	
* 106	A-6782-464-A	HI-6 BOARD, COMPLETE (E800VC)	
* 106	A-6782-469-A	HI-6 BOARD, COMPLETE (E800EG)	
* 106	A-6782-472-A	HI-6 BOARD, COMPLETE (E800EE)	
* 106	A-6782-473-A	HI-6 BOARD, COMPLETE (E800IT)	
* 106	A-6782-510-A	HI-6 BOARD, COMPLETE (E500UX)	
* 106	A-6782-514-A	HI-6 BOARD, COMPLETE (E500VP)	
* 106	A-6782-518-A	HI-6 BOARD, COMPLETE (E500CP)	
* 106	A-6782-520-A	HI-6 BOARD, COMPLETE (E500AP)	
* 106	A-6782-522-A	HI-6 BOARD, COMPLETE (E500IT)	
* 106	A-6782-531-A	HI-6 BOARD, COMPLETE (E700UX)	
* 106	A-6782-532-A	HI-6 BOARD, COMPLETE (E700EX)	
* 106	A-6782-533-A	HI-6 BOARD, COMPLETE (E700IT)	
* 106	A-6782-534-A	HI-6 BOARD, COMPLETE (E700AP)	
* 106	A-6782-546-A	HI-6 BOARD, COMPLETE (E600VP)	
* 107	3-960-571-11	PLATE, FIXED (LARGE), BOTTOM	
* 108	3-741-992-01	STOPPER, UPPER CASE	

Ref. No.	Part No.	Description	Remark
* 109	A-6782-408-A	CP-67 BOARD, COMPLETE (E700EX/UX)	
* 109	A-6782-414-A	CP-67 BOARD, COMPLETE (E600B, E700B, E800BM/NP/VC)	
* 109	A-6782-509-A	CP-67 BOARD, COMPLETE (E500UX)	
109	A-6782-512-A	CP-67 BOARD, COMPLETE (E500AP/IT/VP)	
109	A-6782-517-A	CP-67 BOARD, COMPLETE (E500CP)	
110	1-769-355-11	CABLE, FLEXIBLE FLAT (FCP-6) (E500, E600B, E700B/EX/UX, E800BM/NP/VC)	
111	3-703-397-01	STOPPER, WIRING	
* 112	A-6782-392-A	MA-215 BOARD, COMPLETE (E700EX)	
* 112	A-6782-395-A	MA-215 BOARD, COMPLETE (E700AP)	
* 112	A-6782-396-A	MA-215 BOARD, COMPLETE (E700IT)	
* 112	A-6782-404-A	MA-215 BOARD, COMPLETE (E600VP, E700VP)	
* 112	A-6782-407-A	MA-215 BOARD, COMPLETE (E700UX)	
* 112	A-6782-413-A	MA-215 BOARD, COMPLETE (E600B, E700B)	
* 112	A-6782-416-A	MA-215 BOARD, COMPLETE (E700:NC1/NC2)	
* 112	A-6782-454-A	MA-215 BOARD, COMPLETE (E800NC)	
* 112	A-6782-456-A	MA-215 BOARD, COMPLETE (E800NP)	
* 112	A-6782-458-A	MA-215 BOARD, COMPLETE (E800AP)	
* 112	A-6782-459-A	MA-215 BOARD, COMPLETE (E800IT)	
* 112	A-6782-462-A	MA-215 BOARD, COMPLETE (E800BM)	
* 112	A-6782-465-A	MA-215 BOARD, COMPLETE (E800VC)	
* 112	A-6782-470-A	MA-215 BOARD, COMPLETE (E800EE/EG)	
* 112	A-6782-515-A	MA-215 BOARD, COMPLETE (E500AP/UX/VP)	
* 112	A-6782-519-A	MA-215 BOARD, COMPLETE (E500CP)	
* 112	A-6782-521-A	MA-215 BOARD, COMPLETE (E500IT)	
* 113	A-6782-401-A	PV-12 BOARD, COMPLETE (EXCEPT E500IT, E600B, E700B/IT, E800BM/IT)	
* 114	A-6721-595-A	HF-34 BOARD, COMPLETE (EXCEPT E500)	
115	A-6782-400-A	MF-254 BOARD, COMPLETE	
* 116	3-960-274-01	SPACER, LED	
* 117	3-960-273-01	SPACER, TOP END	
118	1-555-110-00	CABLE, PIN (EXCEPT E500)	
* 119	A-6782-405-A	PS-328 BOARD, COMPLETE (E600, E700, E800AP/BM/IT/NC/NP/VC)	
* 119	A-6782-471-A	PS-328 BOARD, COMPLETE (E800EE/EG)	
* 119	A-6782-511-A	PS-328 BOARD, COMPLETE (E500UX)	
* 119	A-6782-516-A	PS-328 BOARD, COMPLETE (E500AP/CP/IT/VP)	
* 120	3-960-066-11	INSULATOR, PS	
* 121	3-964-037-01	HEAT SINK	
* 122	3-960-463-01	PLATE, ORNAMENTAL (IO), REAR JACK (E800VC)	
* 122	3-960-463-11	PLATE, ORNAMENTAL (IO), REAR JACK (E600VP, E700:NC1/NC2, E700AP/IT/VP, E800AP/EE/EG/IT/NC)	
* 122	3-960-463-21	PLATE, ORNAMENTAL (IO), REAR JACK (E600B, E700B, E800BM)	
* 122	3-960-463-31	PLATE, ORNAMENTAL (IO), REAR JACK (E700EX/UX)	
* 122	3-960-463-41	PLATE, ORNAMENTAL (IO), REAR JACK (E800NP)	
* 122	3-960-463-51	PLATE, ORNAMENTAL (IO), REAR JACK (E500AP/IT/VP)	
* 122	3-960-463-61	PLATE, ORNAMENTAL (IO), REAR JACK (E500UX)	
* 122	3-960-463-71	PLATE, ORNAMENTAL (IO), REAR JACK (E500CP)	
* 123	3-960-465-01	PLATE (PS), ORNAMENTAL, REAR (E800VC)	
* 123	3-960-465-11	PLATE (PS), ORNAMENTAL, REAR (E800IT)	
* 123	3-960-465-21	PLATE (PS), ORNAMENTAL, REAR (E800BM)	
* 123	3-960-465-31	PLATE (PS), ORNAMENTAL, REAR (E800AP)	
* 123	3-960-465-41	PLATE (PS), ORNAMENTAL, REAR (E800NP)	
* 123	3-960-465-51	PLATE (PS), ORNAMENTAL, REAR (E800NC)	
* 123	3-960-465-72	PLATE (PS), ORNAMENTAL, REAR (E800EG)	
* 123	3-960-465-82	PLATE (PS), ORNAMENTAL, REAR (E800EE)	
* 123	3-961-746-01	PLATE (PS), ORNAMENTAL REAR JACK (E700VP)	
* 123	3-961-746-11	PLATE (PS), ORNAMENTAL REAR JACK (E700IT)	
* 123	3-961-746-21	PLATE (PS), ORNAMENTAL REAR JACK (E700B)	
* 123	3-961-746-31	PLATE (PS), ORNAMENTAL REAR JACK (E700AP)	
* 123	3-961-746-41	PLATE (PS), ORNAMENTAL REAR JACK (E700:NC2)	
* 123	3-961-746-51	PLATE (PS), ORNAMENTAL REAR JACK (E700:NC1)	
* 123	3-961-746-62	PLATE (PS), ORNAMENTAL REAR JACK (E700UX)	
* 123	3-961-746-72	PLATE (PS), ORNAMENTAL REAR JACK (E700EX)	
* 123	3-961-752-01	PLATE (PS), ORNAMENTAL REAR JACK (E600B)	
* 123	3-961-752-11	PLATE (PS), ORNAMENTAL REAR JACK (E500VP)	
* 123	3-961-752-21	PLATE (PS), ORNAMENTAL REAR JACK (E500IT)	
* 123	3-961-752-31	PLATE (PS), ORNAMENTAL REAR JACK (E500CP)	
* 123	3-961-752-41	PLATE (PS), ORNAMENTAL REAR JACK (E500AP)	
* 123	3-961-752-52	PLATE (PS), ORNAMENTAL REAR JACK (E500UX)	
* 123	3-961-752-61	PLATE (PS), ORNAMENTAL REAR JACK (E600VP)	
* 124	3-960-464-01	PLATE, ORNAMENTAL (TU), REAR (EXCEPT E500, E600B, E700B, E800BM)	
* 124	3-960-464-11	PLATE, ORNAMENTAL (TU), REAR JACK (E600B, E700B, E800BM)	
* 124	3-960-464-21	PLATE, ORNAMENTAL (TU), REAR JACK (E500)	
D001	8-719-048-26	DIODE GL528V1 (TAPE TOP/END)	
⚠F101	1-576-228-11	FUSE (H.B.C.) (250V/2A)	
FH101	1-533-293-11	FUSE HOLDER	
FH102	1-533-293-11	FUSE HOLDER	
FL301	1-517-313-11	INDICATOR TUBE, FLUORESCENT (EXCEPT E600B, E700B, E800BM)	
FL301	1-517-358-11	TUBE, FLUORESCENT INDICATOR (E600B, E700B, E800BM)	
IC141	8-759-189-48	IC PQ12RE11	
Q001	8-729-025-92	PHOTO TRANSISTOR PT380F (TAPE TOP)	
Q002	8-729-025-92	PHOTO TRANSISTOR PT380F (TAPE END)	

Note.
NC1 : Belgium, North European
NC2 : Spanish, Portugal

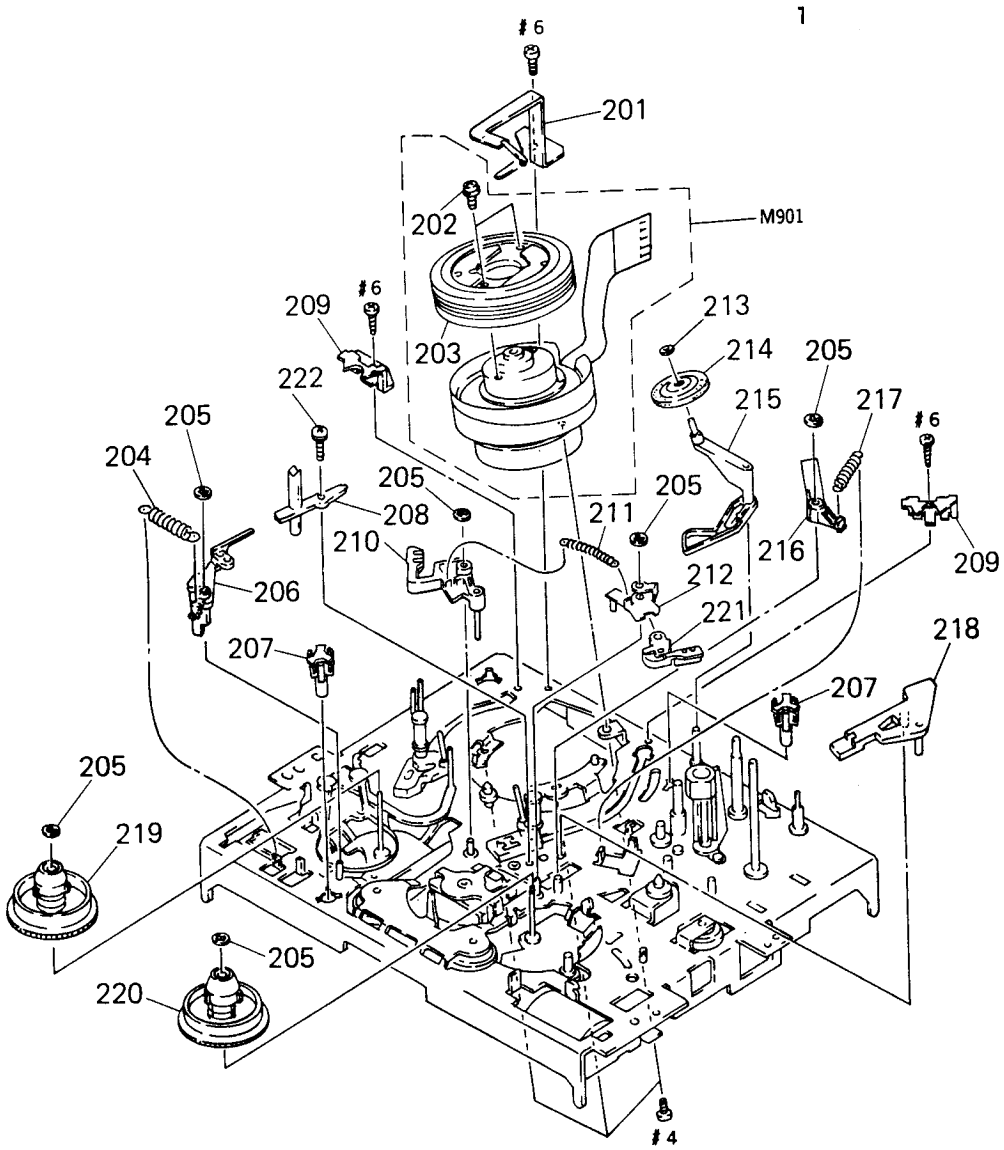
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

5-1-4. MECHANISM DECK ASSEMBLY 1



Ref. No.	Part No.	Description	Remark
151	A-6751-496-A	FL BLOCK ASSY	
152	3-958-467-01	SPRING, TENSION COIL	
153	3-958-195-01	SPRING, TORSION	
154	3-960-215-01	PLATE, LIGHT GUIDE, END SENSOR	
155	3-960-216-01	PLATE, LIGHT GUIDE, TOP SENSOR	
156	X-3944-460-1	ROLLER ASSY, TG2	
157	3-958-487-01	SPRING, (AEC) TORSION COIL	
158	1-500-144-11	HEAD, FE	
159	3-959-841-01	HOLDER, FEH	
160	3-962-298-01	BRACKET, TG7 TAPE	
161	X-3944-797-1	TG8 ASSY	
162	3-958-421-01	HOLDER, TG8	
163	3-958-152-01	GEAR, TG8	
164	A-6736-103-A	ACE BLOCK ASSY (INCLUDING AC-101 BOARD)	
165	1-506-485-11	PIN, CONNECTOR 6P	
166	3-960-439-01	SPRING (ACE), COMPRESSION	
167	3-942-867-01	NUT, AC HEIGHT ADJUSTMENT	
168	3-958-491-01	BASE, ACE	
169	A-6746-072-A	PRESS BLOCK ASSY, PINCH	
170	3-958-505-01	SPRING (SOFT BRAKE T), TENSION	
171	3-958-455-01	SPRING (PINCH), TENSION	
172	3-958-151-01	GEAR, ELEVATOR	
173	3-958-454-01	OPNER, LID	
174	3-958-501-01	SCREW, ACE ADJUSTMENT	
175	3-958-153-01	GEAR, PRESS	
176	3-958-462-01	SPRING (RVS BRAKE), TENSION	
177	X-3943-885-1	ARM ASSY, RVS BRAKE	
178	X-3943-882-1	BRAKE (T) ASSY, SOFT	
179	3-701-438-11	WASHER, 2.5	

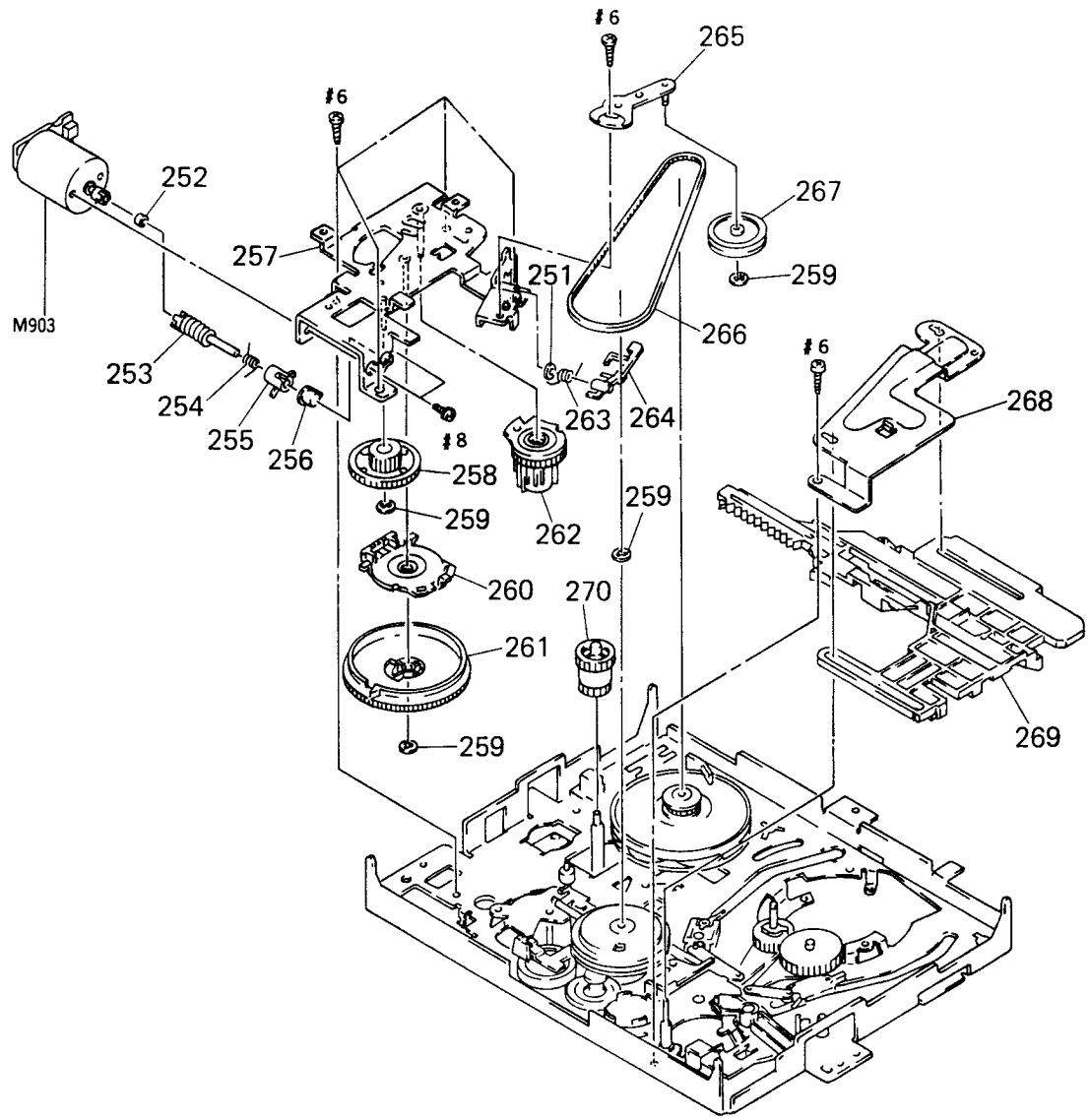
5-1-5. MECHANISM DECK ASSEMBLY 2



Ref. No.	Part No.	Description	Remark
201	X-3943-899-1	GROUND ASSY, SHAFT	
202	2-643-205-01	SCREW (PSW) 3X8	
203	8-848-621-02	DRUM ASSY, ROTARY UPPER (DZR-54-R) (E500)	
203	8-848-622-02	DRUM ASSY, ROTARY UPPER (DZR-66-R) (EXCEPT E500)	
204	3-958-443-01	SPRING, STRETCH COIL SPRING	
205	3-669-595-00	WASHER (2), STOPPER	
206	3-958-450-01	BRAKE (S), SOFT	
207	3-958-390-01	SHAFT, PC BOARD	
208	3-958-391-01	PLATE, LIGHT GUIDE, LED	
209	3-958-389-01	CATCHER	
210	X-3944-599-1	BRAKE (S) ASSY, MAIN	
211	3-958-517-01	SPRING, TENSIONCOIL	
212	X-3944-628-1	BRAKE (T) ASSY, MAIN	

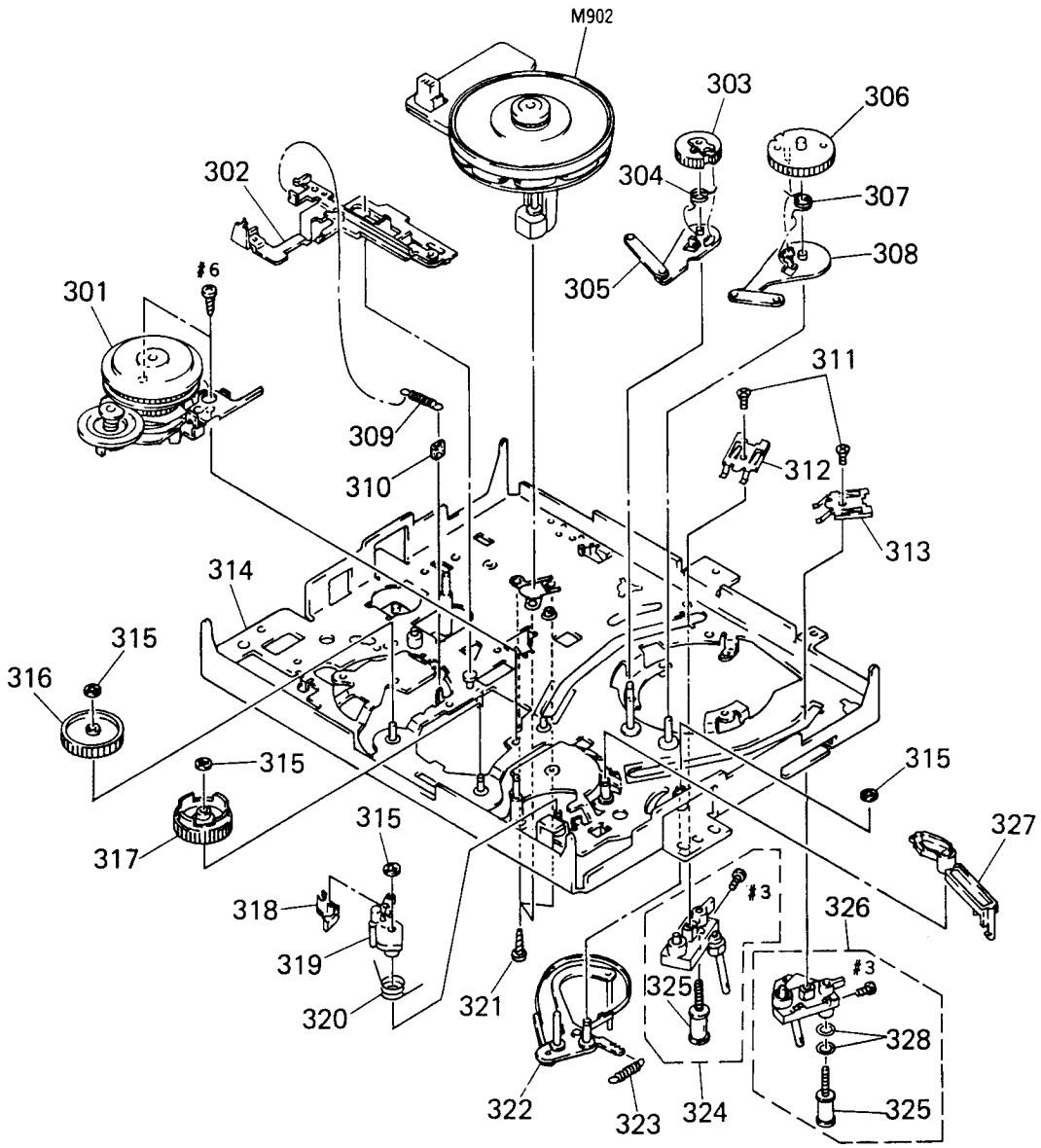
Ref. No.	Part No.	Description	Remark
213	3-321-393-01	WASHER, STOPPER	
214	X-3944-363-1	ROLLER ASSY, HC	
215	X-3943-896-1	ARM ASSY, HC	
216	3-960-139-01	ARM, NEUTRALITY	
217	3-958-535-01	SPRING, TENSION	
218	3-960-138-01	ARM, PENDULUM COMPULSION	
219	X-3943-902-1	TABLE, REEL (S) ASSY	
220	X-3943-903-1	TABLE, REEL (T) ASSY	
221	X-3944-598-1	CAP ASSY, MAIN BRAKE	
222	3-961-441-01	SCREW (PS 3X8)	
M901	8-848-618-12	DRUM ASSY (DZH-54A-R) (E500)	
M901	8-848-619-12	DRUM ASSY (DZH-66A-R) (EXCEPT E500)	

5-1-6. MECHANISM DECK ASSEMBLY 3



Ref. No.	Part No.	Description	Remark
251	3-701-439-21	WASHER	
252	3-959-840-01	RUBBER, JOINT	
253	3-958-159-01	WORM	
254	3-958-460-01	SPRING, ONE-WAY	
255	3-958-160-01	PROPELLOR	
256	3-958-155-01	BEARING, CAM MOTOR	
* 257	X-3943-884-1	CHASSIS ASSY, CAM MOTOR	
258	3-958-157-01	WHEEL, WORM	
259	3-669-595-00	WASHER (2), STOPPER	
260	1-762-076-11	SWITCH, ROTARY	
261	3-958-161-01	GEAR, CAM	
262	3-958-156-01	GEAR, FL DRIVING	
263	3-958-445-01	SPRING, TORSIONCOIL (CAP BRAKE)	
264	X-3943-888-1	BRAKE ASSY, CAP	
265	X-3943-889-1	ARM ASSY, TENSION VEHICLE	
266	3-958-361-01	BELT, TIMING	
267	3-958-448-01	WHEEL, TENSION	
* 268	3-959-763-01	RETAINER	
269	3-958-163-01	SLIDER, MAIN	
270	3-958-162-01	GEAR, UPPER/LOWER COMMUNICATION	
M903	X-3943-883-1	MOTOR ASSY, CAM	

5-1-7. MECHANISM CHASSIS ASSEMBLY 4



Ref. No.	Part No.	Description	Remark
301	A-6739-102-A	RKB BLOCK ASSY	
302	X-3943-897-1	LEVER ASSY, TRIGGER	
303	3-958-485-01	GEAR (T), LOADING	
304	3-960-449-01	SPRING (T), TORSION COIL	
305	X-3943-891-1	LEVER (T) ASSY, LOADING	
306	3-958-476-01	GEAR (S), LOADING	
307	3-960-448-01	SPRING (S), TORSION COIL	
308	X-3943-890-1	LEVER (S) ASSY, LOADING	
309	3-958-529-01	SPRING (MOMENT), TENSION	
310	3-959-840-01	RUBBER, JOINT	
311	3-960-720-01	SCREW	
312	3-960-688-01	SPRING, LEAF (T), LOADING	
313	3-960-687-01	SPRING, LEAF (S), LOADING	
* 314	X-3943-874-1	CHASSIS ASSY, MECHANICAL	
315	3-669-595-00	WASHER (2), STOPPER	

Ref. No.	Part No.	Description	Remark
316	3-962-960-01	GEAR (T-K), IDLER	
317	3-962-959-01	GEAR (S-K), IDLER	
318	3-958-533-01	CLAW, S WINDING	
319	3-958-532-01	ARM, S WINDING	
320	3-958-534-01	SPRING, TORSION	
321	3-960-272-01	SCREW (2.6)	
322	X-3943-886-1	TG1 ASSY	
323	3-958-492-01	SPRING (TG1), TENSION COIL	
324	A-6750-314-A	T BLOCK ASSY, SHUTTLE	
325	X-3944-378-1	ROLLER ASSY, GUIDE	
326	A-6750-316-A	SHUTTLE (S) BLOCK ASSY	
327	3-958-504-01	ARM, FIXED RELEASE	
328	3-962-874-01	O-RING	
M902	1-698-409-11	MOTOR, DC (CAPSTAN)	

5-2. ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-6782-408-A	CP-67 BOARD, COMPLETE (E700EX/UX)			
*	A-6782-414-A	CP-67 BOARD, COMPLETE (E600B, E700B, E800BM/NP/VC)			
*	A-6782-509-A	CP-67 BOARD, COMPLETE (E500UX)			
*	A-6782-512-A	CP-67 BOARD, COMPLETE (E500AP/IT/VP)			
*	A-6782-517-A	CP-67 BOARD, COMPLETE (E500CP)			
		********** (Ref. No 5,000 series)			
		< CAPACITOR >			
C101	1-124-903-11	ELECT (E500CP, E600B, E700B, E800BM/NP/VC)	1uF	20% 50V	
C102	1-124-477-11	ELECT (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	47uF	20% 25V	
C103	1-163-031-11	CERAMIC CHIP (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	0.01uF	50V	
C104	1-124-903-11	ELECT (E500CP, E600B, E700B, E800BM/NP/VC)	1uF	20% 50V	
C105	1-124-903-11	ELECT (E500CP, E600B, E700B, E800BM/NP/VC)	1uF	20% 50V	
C106	1-124-903-11	ELECT (E500CP, E600B, E700B, E800BM/NP/VC)	1uF	20% 50V	
C107	1-126-233-11	ELECT (E500CP, E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C108	1-126-233-11	ELECT (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	22uF	20% 50V	
C109	1-163-059-00	CERAMIC CHIP (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	0.01uF	10% 50V	
C110	1-124-477-11	ELECT (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	47uF	20% 25V	
C111	1-126-233-11	ELECT (E500CP, E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C112	1-107-682-11	CERAMIC CHIP (E500CP, E600B, E700B/EX/UX, E800BM/NP/NC)	1uF	10% 16V	
C113	1-126-233-11	ELECT (E500CP, E600B, E700B/EX/UX, E800BM/NP/NC)	22uF	20% 50V	
C114	1-126-233-11	ELECT (E500CP, E600B, E700B, E800BM/NP/NC)	22uF	20% 50V	
C115	1-126-233-11	ELECT (E500CP, E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C116	1-126-233-11	ELECT (E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C117	1-126-233-11	ELECT (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	22uF	20% 50V	
C118	1-126-233-11	ELECT (E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C119	1-126-233-11	ELECT (E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C120	1-126-233-11	ELECT (E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C121	1-126-233-11	ELECT (E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C122	1-126-233-11	ELECT (E600B, E700B, E800BM/NP/VC)	22uF	20% 50V	
C123	1-162-638-11	CERAMIC CHIP (E700EX/UX)	1uF	16V	
C124	1-164-346-11	CERAMIC CHIP (E700EX/UX)	1uF	16V	
C125	1-162-638-11	CERAMIC CHIP (E700EX/UX)	1uF	16V	
C131	1-163-031-11	CERAMIC CHIP (E700EX/UX)	0.01uF	50V	
C132	1-164-004-11	CERAMIC CHIP (E700EX/UX)	0.1uF	10% 25V	
C133	1-124-907-11	ELECT (E700EX/UX)	10uF	20% 50V	
C134	1-124-907-11	ELECT (E700EX/UX)	10uF	20% 50V	
C136	1-124-477-11	ELECT (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	47uF	20% 25V	
C137	1-164-336-11	CERAMIC CHIP (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	0.33uF	25V	
C704	1-163-009-11	CERAMIC CHIP (E500)	0.001uF	10% 50V	
C705	1-124-927-11	ELECT (E500)	4.7uF	20% 100V	
C706	1-163-031-11	CERAMIC CHIP (E500)	0.01uF	50V	
C711	1-126-101-11	ELECT (E500)	100uF	20% 16V	
C712	1-163-031-11	CERAMIC CHIP (E500)	0.01uF	50V	

Ref. No.	Part No.	Description			Remark
C713	1-124-126-00	ELECT (E500)	47uF	20%	10V
C714	1-163-031-11	CERAMIC CHIP (E500)	0.01uF		50V
C715	1-163-031-11	CERAMIC CHIP (E500)	0.01uF		50V
C718	1-126-233-11	ELECT (E500)	22uF	20%	50V
C721	1-163-031-11	CERAMIC CHIP (E500)	0.01uF		50V
C723	1-163-031-11	CERAMIC CHIP (E500)	0.01uF		50V
C727	1-124-126-00	ELECT (E500)	47uF	20%	10V
C733	1-124-907-11	ELECT (E500)	10uF	20%	50V
		< CONNECTOR >			
CJ101	1-695-935-11	CONNECTOR (SQUARE TYPE) 21P (CANAL+, EURO-AV(LINE IN2)) (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
CN101	1-506-478-11	PIN, CONNECTOR 13P (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
CN102	1-691-057-21	HOUSING, CONNECTOR 25P (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
CN701	1-506-473-11	PIN, CONNECTOR 8P (E500)			
CN702	1-506-477-11	PIN, CONNECTOR 12P (E500)			
		< DIODE >			
D101	8-719-800-76	DIODE 1SS226 (E500CP, E600B, E700B, E800BM/NP/VC)			
D102	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D103	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D104	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B, E800BM/NP/VC)			
D105	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B, E800BM/NP/VC)			
D106	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B, E800BM/NP/VC)			
D107	8-719-921-86	DIODE MTZJ-13 (E500CP, E600B, E700B, E800BM/NP/VC)			
D108	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D109	8-719-109-97	DIODE RD6.8ESB2 (E600B, E700B, E800BM/NP/VC)			
D110	8-719-109-97	DIODE RD6.8ESB2 (E600B, E700B, E800BM/NP/VC)			
D111	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B, E800BM/NP/VC)			
D112	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B, E800BM/NP/VC)			
D113	8-719-108-12	DIODE RD9.1EW (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D114	8-719-108-12	DIODE RD9.1EW (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D115	8-719-108-12	DIODE RD9.1EW (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D116	8-719-108-12	DIODE RD9.1EW (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D117	8-719-108-12	DIODE RD9.1EW (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
D702	8-719-800-76	DIODE 1SS226 (E500)			
D703	8-719-978-94	DIODE DTZ-TT11-30C (E500)			
		< FILTER >			
FL101	1-236-163-11	ENCAPSULATED COMPONENT (E500CP, E600B, E700B, E800BM/NP/VC)			
FL102	1-236-163-11	ENCAPSULATED COMPONENT (E600B, E700B, E800BM/NP/VC)			
FL103	1-236-163-11	ENCAPSULATED COMPONENT (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
FL104	1-236-163-11	ENCAPSULATED COMPONENT (E600B, E700B/EX/UX, E800BM/NP/VC)			
		< IC >			
IC101	8-759-280-24	IC BA7630F-E2 (E500CP, E600B, E700B, E800BM/NP/VC)			
IC102	8-759-280-23	IC BA7632F-E2 (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
IC103	8-759-280-23	IC BA7632F-E2 (E600B, E700B, E800B/NP/VC)			
IC104	8-759-296-72	IC PQ12SZ5U (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
IC131	8-759-710-07	IC NJM2234M (E700EX/UX)			
		< JUMPER RESISTOR >			
JR104	1-216-295-91	CONDCTOR, CHIP (2012) (E500)			
JR111	1-216-295-91	CONDCTOR, CHIP (2012) (E500CP, E600B, E700B, E800BM/NP/VC)			
JR112	1-216-295-91	CONDCTOR, CHIP (2012) (E700EX/UX)			
JR113	1-216-295-91	CONDCTOR, CHIP (2012) (E700EX/UX)			
JR114	1-216-296-00	METAL CHIP (E700EX/UX)	0	5%	1/8W
JR130	1-216-295-91	CONDCTOR, CHIP (2012) (E700EX/UX)			
JR156	1-216-296-00	METAL CHIP (E500, E600B, E700B/EX/UX, E800BM/NP/VC)	0	5%	1/8W
JR157	1-216-296-00	METAL CHIP (E500, E600B, E700B/EX/UX, E800BM/NP/VC)	0	5%	1/8W
JR701	1-216-295-91	CONDCTOR, CHIP (2012) (E500)			

CP-67 DC-58 HF-34

Ref. No.	Part No.	Description	Remark
		< COIL >	
L101	1-414-189-31	INDUCTOR 100uH (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	
L131	1-414-183-41	INDUCTOR 10uH (E700EX/UX)	
L702	1-414-189-31	INDUCTOR 100uH (E500)	
L703	1-414-183-41	INDUCTOR 10uH (E500)	
L704	1-414-189-31	INDUCTOR 100uH (E500)	
L706	1-410-501-11	INDUCTOR 2.2uH (E500)	
L707	1-410-501-11	INDUCTOR 2.2uH (E500)	
L712	1-414-142-11	INDUCTOR 1uH (E500)	
		< TRANSISTOR >	
Q101	8-729-010-05	TRANSISTOR MSB709-RT1 (E500CP, E600B, E700B, E800BM/NP/VC)	
Q102	8-729-010-25	TRANSISTOR MSD601-RT1 (E500CP, E600B, E700B, E800BM/NP/VC)	
Q103	8-729-010-05	TRANSISTOR MSB709-RT1 (E500CP, E600B, E700B, E800BM/NP/VC)	
Q703	8-729-173-38	TRANSISTOR 2SA733-K (E500)	
Q705	8-729-010-25	TRANSISTOR MSD601-RT1 (E500)	
Q709	8-729-010-25	TRANSISTOR MSD601-RT1 (E500)	
		< RESISTOR >	
R102	1-216-295-91	CONDCTOR, CHIP (2012) (E500CP, E600B, E700B, E800BM/NP/VC)	
R103	1-216-222-00	METAL GLAZE 10K 5% 1/8W (E500CP, E600B, E700B, E800BM/NP/VC)	
R104	1-216-222-00	METAL GLAZE 10K 5% 1/8W (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	
R105	1-216-073-00	METAL CHIP 10K 5% 1/10W (E500CP, E600B, E700B, E800BM/NP/VC)	
R106	1-216-073-00	METAL CHIP 10K 5% 1/10W (E500CP, E600B, E700B, E800BM/NP/VC)	
R107	1-216-073-00	METAL CHIP 10K 5% 1/10W (E500CP, E600B, E700B, E800BM/NP/VC)	
R108	1-216-063-00	METAL CHIP 3.9K 5% 1/10W (E500CP, E600B, E700B, E800BM/NP/VC)	
R109	1-216-049-00	METAL CHIP 1K 5% 1/10W (E500CP, E600B, E700B, E800BM/NP/VC)	
R110	1-247-804-11	CARBON 75 5% 1/4W (E500CP, E600B, E700B, E800BM/NP/VC)	
R111	1-249-417-11	CARBON 1K 5% 1/4W F (E500CP, E600B, E700B, E800BM/NP/VC)	
R112	1-216-296-00	METAL CHIP 0 5% 1/8W (E500CP, E600B, E700B, E800BM/NP/VC)	
R115	1-216-022-00	METAL CHIP 75 5% 1/10W (E500CP/E600B/E700B/EX/UX, E800BM/NP/VC)	
R116	1-216-238-91	METAL GLAZE 47K 5% 1/8W (E500CP, E600B, E700B, E800BM/NP/VC)	
R117	1-216-238-91	METAL GLAZE 47K 5% 1/8W (E500CP, E600B, E700B, E800BM/NP/VC)	
R118	1-216-041-00	METAL CHIP 470 5% 1/10W (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	
R119	1-216-041-00	METAL CHIP 470 5% 1/10W (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	
R120	1-216-043-91	METAL GLAZE 560 5% 1/10W (E500CP, E600B, E700B, E800BM/NP/VC)	
R121	1-216-043-91	METAL GLAZE 560 5% 1/10W (E600B, E700B, E800BM/NP/VC)	
R131	1-216-025-00	METAL CHIP 100 5% 1/10W (E700EX/UX)	
R132	1-216-017-00	METAL CHIP 47 5% 1/10W (E700EX/UX)	
R701	1-216-025-00	METAL CHIP 100 5% 1/10W (E500)	
R702	1-216-222-00	METAL GLAZE 10K 5% 1/8W (E500)	
R703	1-247-807-31	CARBON 100 5% 1/4W (E500)	
R708	1-216-025-00	METAL CHIP 100 5% 1/10W (E500)	
R709	1-216-089-00	METAL CHIP 47K 5% 1/10W (E500)	
R713	1-216-186-00	METAL GLAZE 330 5% 1/8W (E500)	
R714	1-216-037-00	METAL CHIP 330 5% 1/10W (E500)	
R715	1-216-174-00	METAL GLAZE 100 5% 1/8W (E500)	
R718	1-216-025-00	METAL CHIP 100 5% 1/10W (E500)	
R719	1-216-049-00	METAL CHIP 1K 5% 1/10W (E500)	
R720	1-216-049-00	METAL CHIP 1K 5% 1/10W (E500)	
R721	1-216-041-00	METAL CHIP 470 5% 1/10W (E500)	
R722	1-216-041-00	METAL CHIP 470 5% 1/10W (E500)	
R725	1-216-025-00	METAL CHIP 100 5% 1/10W (E500)	
R726	1-216-025-00	METAL CHIP 100 5% 1/10W (E500)	
R731	1-247-807-31	CARBON 100 5% 1/4W (E500)	
R732	1-247-807-31	CARBON 100 5% 1/4W (E500)	
		< TUNER >	
⚠TU701	1-693-275-11	TUNER, IF (BTF-3MU601) (AERIAL OUT/IN) (E500UX)	
⚠TU701	1-693-279-11	TUNER, IF (BTF-3MC422) (AERIAL OUT/IN) (E500AP/CP/IT/VP)	

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* A-6794-030-A DC-58 BOARD, COMPLETE

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(Ref. No 4,000 series)

< CONNECTOR >

* CN701 1-766-714-11 CONNECTOR, BOARD TO BOAR 5P
* CN702 1-766-713-11 CONNECTOR, BOARD TO BOAR 5P

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* A-6721-595-A HF-34 BOARD, COMPLETE

(E600/E700/E800)

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(Ref. No 4,000 series)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C101	1-124-907-11	ELECT	10uF	20%	50V
C102	1-124-907-11	ELECT	10uF	20%	50V
C103	1-124-927-11	ELECT	4.7uF	20%	100V
C104	1-124-927-11	ELECT	4.7uF	20%	100V
C105	1-124-126-00	ELECT	47uF	20%	10V
C106	1-124-126-00	ELECT	47uF	20%	10V
C107	1-124-126-00	ELECT	47uF	20%	10V
C108	1-126-962-11	ELECT	3.3uF	20%	50V
C109	1-126-962-11	ELECT	3.3uF	20%	50V
C110	1-126-962-11	ELECT	3.3uF	20%	50V
C111	1-126-962-11	ELECT	3.3uF	20%	50V
C112	1-126-233-11	ELECT	22uF	20%	50V
C113	1-126-233-11	ELECT	22uF	20%	50V
C114	1-124-252-00	ELECT	0.33uF	20%	50V
C115	1-124-443-00	ELECT	100uF	20%	10V
C116	1-124-443-00	ELECT	100uF	20%	10V
C117	1-104-792-51	ELECT	33uF	20%	16V
C118	1-137-372-11	FILM	0.022uF	5%	50V
C119	1-137-372-11	FILM	0.022uF	5%	50V
C120	1-137-370-11	FILM	0.01uF	5%	50V
C121	1-137-370-11	FILM	0.01uF	5%	50V
C122	1-137-367-11	FILM	0.0033uF	5%	50V
C123	1-137-367-11	FILM	0.0033uF	5%	50V
C124	1-137-364-11	FILM	0.001uF	5%	50V
C125	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C126	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C127	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C128	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C129	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C130	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C131	1-137-372-11	FILM	0.022uF	5%	50V
C132	1-137-372-11	FILM	0.022uF	5%	50V
C133	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C134	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C135	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
* CN101	1-573-825-11	CONNECTOR, BOARD TO BOARD 11P			
* CN102	1-573-825-11	CONNECTOR, BOARD TO BOARD 11P			
* CN103	1-564-013-11	PIN, CONNECTOR 3P			
		< DIODE >			
D101	8-719-404-46	DIODE MA110			
		< IC >			
IC101	8-759-188-81	IC XLH7776K-VP			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q101	8-729-804-41	TRANSISTOR 2SB1122-S			
Q102	8-729-820-68	TRANSISTOR 2SD1802FA-S			
Q103	8-729-421-19	TRANSISTOR UN2213			
Q104	8-729-421-19	TRANSISTOR UN2213			
		< RESISTOR >			
R101	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R102	1-208-809-11	METAL GLAZE	13K	0.50%	1/10W
R103	1-216-083-00	METAL CHIP	27K	5%	1/10W
R104	1-216-081-00	METAL CHIP	22K	5%	1/10W
R105	1-216-089-00	METAL CHIP	47K	5%	1/10W
R106	1-216-089-00	METAL CHIP	47K	5%	1/10W
R107	1-216-083-00	METAL CHIP	27K	5%	1/10W
R108	1-216-075-00	METAL CHIP	12K	5%	1/10W
R109	1-216-075-00	METAL CHIP	12K	5%	1/10W
R110	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R111	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R112	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R113	1-216-109-00	METAL CHIP	330K	5%	1/10W
R114	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R115	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R116	1-216-077-00	METAL CHIP	15K	5%	1/10W
R118	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R119	1-216-107-00	METAL CHIP	270K	5%	1/10W
R120	1-216-295-91	CONDCTOR, CHIP (2012)			
R121	1-216-107-00	METAL CHIP	270K	5%	1/10W
R123	1-216-295-91	CONDCTOR, CHIP (2012)			
R124	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R125	1-216-049-00	METAL CHIP	1K	5%	1/10W
R130	1-216-049-00	METAL CHIP	1K	5%	1/10W
		< VARIABLE RESISTOR >			
RV101	1-241-764-11	RES, ADJ, CERMET 10K (PB RF BPF FO & HF/N DET BRF FO)			
RV102	1-241-763-11	RES, ADJ, CERMET 4.7K (VCO FO (R))			
RV103	1-241-763-11	RES, ADJ, CERMET 4.7K (VCO FO (L))			

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*	A-6781-399-A	HI-6 BOARD, MOUNTED (E700EX/UX)
*	A-6781-403-A	HI-6 BOARD, MOUNTED (E700IT)
*	A-6781-415-A	HI-6 BOARD, MOUNTED (E700AP)
*	A-6782-412-A	HI-6 BOARD, COMPLETE (E600B)
	A-6782-415-A	HI-6 BOARD, COMPLETE (E700:NC1/NC2, E700B/VP)
*	A-6782-453-A	HI-6 BOARD, COMPLETE (E800NC)
*	A-6782-455-A	HI-6 BOARD, COMPLETE (E800NP)
*	A-6782-457-A	HI-6 BOARD, COMPLETE (E800AP)
*	A-6782-461-A	HI-6 BOARD, COMPLETE (E800BM)
*	A-6782-464-A	HI-6 BOARD, COMPLETE (E800VC)

Ref. No.	Part No.	Description	Remark
*	A-6782-469-A	HI-6 BOARD, COMPLETE (E800EG)	
*	A-6782-472-A	HI-6 BOARD, COMPLETE (E800EE)	
*	A-6782-473-A	HI-6 BOARD, COMPLETE (E800IT)	
*	A-6782-510-A	HI-6 BOARD, COMPLETE (E500UX)	
*	A-6782-514-A	HI-6 BOARD, COMPLETE (E500VP)	
*	A-6782-518-A	HI-6 BOARD, COMPLETE (E500CP)	
*	A-6782-520-A	HI-6 BOARD, COMPLETE (E500AP)	
*	A-6782-522-A	HI-6 BOARD, COMPLETE (E500IT)	
*	A-6782-546-A	HI-6 BOARD, COMPLETE (E600VP)	
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		(Ref. No 3,000 series)	
*	3-960-068-11	HOLDER (A), FL	
		< BUZZER >	
BZ301	1-529-104-11	BUZZER, PIEZO ELECTRIC	
		< CAPACITOR >	
C302	1-164-346-11	CERAMIC CHIP 1uF	16V
C304	1-163-009-11	CERAMIC CHIP 0.001uF 10% (E500, E800)	50V
C305	1-163-009-11	CERAMIC CHIP 0.001uF 10% (E800AP/BM/EE/EG/IT/NC/NP/VC)	50V
C305	1-216-295-91	CONDCTOR, CHIP (2012) (E500)	
C306	1-163-009-11	CERAMIC CHIP 0.001uF 10% (E500, E800)	50V
C307	1-163-234-11	CERAMIC CHIP 20PF 5%	50V
C308	1-163-102-00	CERAMIC CHIP 24PF 5%	50V
C309	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C310	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C311	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C312	1-164-346-11	CERAMIC CHIP 1uF	16V
C313	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C314	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C315	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C316	1-128-057-11	ELECT 330uF 20% (E500AP/CP/IT/VP, E600, E700, E800EE/EG)	6.3V
C316	1-126-245-11	ELECT 330uF 20% (E500UX)	6.3V
C317	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C318	1-125-705-11	CAP, DOUBLE LAYERS 0.22F	
C320	1-163-035-00	CERAMIC CHIP 0.047uF	50V
C321	1-124-261-00	ELECT 10uF 20%	50V
C326	1-126-154-11	ELECT 47uF 20% (EXCEPT E500UX, E800NC)	6.3V
C326	1-126-245-11	ELECT 330uF 20% (E500UX)	6.3V
C326	1-128-057-11	ELECT 330uF 20% (E800NC)	6.3V
C330	1-124-584-00	ELECT 100uF 20%	10V

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CN301	1-691-051-21	HOUSING, CONNECTOR 19P	
CN302	1-691-051-21	HOUSING, CONNECTOR 19P	
CN303	1-568-673-11	CONNECTOR, BOARD TO BOARD 14P	
CN304	1-691-036-21	PIN, CONNECTOR (PC BOARD) 4P	
CN305	1-506-469-11	PIN, CONNECTOR 4P	
		< DIODE >	
D301	8-719-045-64	LED SLR-342MC-A-47 (ON/STANDBY, MARCHE/YEILLE)	
D302	8-719-045-64	LED SLR-342MC-A-47 (ON/STANDBY, MARCHE/YEILLE)	
D303	8-719-045-62	LED SLR-342VC-A-47 (ON/STANDBY, MARCHE/YEILLE)	
D304	8-719-911-19	DIODE 1SS119	
D312	8-719-911-19	DIODE 1SS119	
D313	8-719-200-82	DIODE 11ES2	
D320	8-719-110-08	DIODE RD8.2ESB2	
		< FLUORESCENT INDICATOR >	
FL301	1-517-313-11	INDICATOR TUBE, FLUORESCENT (EXCEPT E600B/E700B/E800BM)	
FL301	1-517-358-11	TUBE, FLUORESCENT INDICATOR (E600B, E700B, E800BM)	
		< IC >	
IC301	8-759-279-61	IC ST93CS66B1	
IC302	8-759-336-26	IC MB89096PF-G-175-BND (E500IT/VP, E600VP, E700IT/VP, E800EE/EG/IT/VC)	
IC302	8-759-336-27	IC MB89096PF-G-173-BND (E500CP/UX, E700:NC2, E700EX/UX, E800NP)	
IC302	8-759-336-28	IC MB89096PF-G-174-BND (E500AP, E600B, E700:NC1, E700AP/B, E800AP/BM/NC)	
IC303	8-759-248-87	IC MM1256XF-BE	
IC305	1-466-833-11	IC RAY-CATCHER BLOCK, REMOCON	
		< JUMPER RESISTOR >	
JR301	1-216-295-91	CONDCTOR, CHIP (2012)	
JR308	1-216-295-91	CONDCTOR, CHIP (2012)	
JR309	1-216-296-00	METAL CHIP 0 5%	1/8W
JR310	1-216-295-91	CONDCTOR, CHIP (2012)	
JR311	1-216-295-91	CONDCTOR, CHIP (2012)	
JR312	1-216-295-91	CONDCTOR, CHIP (2012)	
JR313	1-216-295-91	CONDCTOR, CHIP (2012)	
JR318	1-216-295-91	CONDCTOR, CHIP (2012)	
JR320	1-216-295-91	CONDCTOR, CHIP (2012)	(E500)
JR330	1-216-295-91	CONDCTOR, CHIP (2012)	

Note.
NC1 : Belgium, North European
NC2 : Spanish, Portugal

Ref. No.	Part No.	Description			Remark
JR331	1-216-295-91	CONDCTOR, CHIP (2012)			
JR332	1-216-295-91	CONDCTOR, CHIP (2012) (E500)			
JR332	1-216-296-00	METAL CHIP (E800)	0	5%	1/8W
JR333	1-216-296-00	METAL CHIP	0	5%	1/8W
JR334	1-216-296-00	METAL CHIP	0	5%	1/8W
JR335	1-216-296-00	METAL CHIP	0	5%	1/8W
JR336	1-216-296-00	METAL CHIP	0	5%	1/8W
JR337	1-216-296-00	METAL CHIP	0	5%	1/8W
JR338	1-216-296-00	METAL CHIP	0	5%	1/8W
JR339	1-216-296-00	METAL CHIP	0	5%	1/8W
JR340	1-216-296-00	METAL CHIP	0	5%	1/8W
JR341	1-216-296-00	METAL CHIP	0	5%	1/8W
JR342	1-216-296-00	METAL CHIP	0	5%	1/8W
JR345	1-216-296-00	METAL CHIP	0	5%	1/8W
JR373	1-216-295-91	CONDCTOR, CHIP (2012)			
JR375	1-216-295-91	CONDCTOR, CHIP (2012)			
JR376	1-216-295-91	CONDCTOR, CHIP (2012)			
		< COIL >			
L303	1-414-183-41	INDUCTOR 10uH			
L310	1-410-513-11	INDUCTOR 22uH			
		< JACK >			
PJ301	1-766-861-11	JACK, PIN (3P) (LINE IN 2 VIDEO AUDIO L/R) (E800)			
PJ301	1-766-862-11	JACK, PIN (2P) (LINE IN 2 VIDEO AUDIO) (E500)			
		< TRANSISTOR >			
Q301	8-729-421-19	TRANSISTOR UN2213			
Q302	8-729-900-51	TRANSISTOR DTA114TK			
		< RESISTOR >			
R301	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R302	1-216-020-00	METAL GLAZE	62	5%	1/10W
R303	1-216-033-00	METAL CHIP	220	5%	1/10W
R304	1-216-057-00	METAL CHIP	2.2K	5%	1/10W(E600)
R304	1-216-295-91	CONDCTOR, CHIP (2012) (E500, E700, E800)			
R305	1-216-061-00	METAL CHIP	3.3K	5%	1/10W(E600)
R305	1-216-295-91	CONDCTOR, CHIP (2012) (E500, E700, E800)			
R307	1-216-022-00	METAL CHIP (E500, E800)	75	5%	1/10W
R310	1-216-296-00	METAL CHIP	0	5%	1/8W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W (E600)
R312	1-216-113-00	METAL CHIP (E500, E700, E800)	470K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R313	1-216-073-00	METAL CHIP	10K	5%	1/10W (E600)
R313	1-216-113-00	METAL CHIP (E500, E700, E800)	470K	5%	1/10W
R314	1-249-429-11	CARBON	10K	5%	1/4W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R316	1-216-073-00	METAL CHIP	10K	5%	1/10W
R317	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R318	1-216-073-00	METAL CHIP	10K	5%	1/10W
R321	1-216-073-00	METAL CHIP	10K	5%	1/10W
R322	1-216-049-00	METAL CHIP	1K	5%	1/10W
R323	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R324	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R325	1-216-295-91	CONDCTOR, CHIP (2012)			
R326	1-249-425-11	CARBON	4.7K	5%	1/4W F
R327	1-216-041-00	METAL CHIP (E800)	470	5%	1/10W
R328	1-216-041-00	METAL CHIP (E500, E800)	470	5%	1/10W
R329	1-216-073-00	METAL CHIP	10K	5%	1/10W
R330	1-216-073-00	METAL CHIP	10K	5%	1/10W
R331	1-216-089-00	METAL CHIP	47K	5%	1/10W
R332	1-216-113-00	METAL CHIP	470K	5%	1/10W
R333	1-216-198-91	METAL GLAZE	1K	5%	1/8W
R334	1-216-095-00	METAL CHIP	82K	5%	1/10W
R336	1-216-057-00	METAL CHIP	2.2K	5%	1/10W(E600)
R336	1-216-295-91	CONDCTOR, CHIP (2012) (E500, E700, E800)			
R337	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W (E600)
R337	1-216-296-00	METAL CHIP (E500, E700, E800)	0	5%	1/8W
R338	1-216-061-00	METAL CHIP	3.3K	5%	1/10W (E600VP)
R338	1-216-295-91	CONDCTOR, CHIP (2012) (E500, E600B, E700, E800)			
R339	1-249-433-11	CARBON (E800)	22K	5%	1/4W
R340	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R341	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (E600)
R341	1-216-295-91	CONDCTOR, CHIP (2012) (E500, E700, E800)			
R342	1-216-065-00	METAL CHIP	4.7K	5%	1/10W (E600)
R342	1-216-295-91	CONDCTOR, CHIP (2012) (E500, E700, E800)			
R343	1-249-433-11	CARBON (E800)	22K	5%	1/4W
R347	1-247-870-11	CARBON	43K	5%	1/4W
R348	1-249-437-11	CARBON	47K	5%	1/4W
R349	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R350	1-216-073-00	METAL CHIP	10K	5%	1/10W
R351	1-216-073-00	METAL CHIP	10K	5%	1/10W
R360	1-216-113-00	METAL CHIP	470K	5%	1/10W

Ref. No.	Part No.	Description				Remark
R361	1-249-417-11	CARBON	1K	5%	1/4W	F
R362	1-249-417-11	CARBON	1K	5%	1/4W	F
R363	1-249-417-11	CARBON	1K	5%	1/4W	F
R364	1-249-417-11	CARBON	1K	5%	1/4W	F
R365	1-249-417-11	CARBON	1K	5%	1/4W	F
		< SWITCH >				
S301	1-571-977-11	SWITCH, TACTIL (ON/STANDBY)				
S302	1-571-977-11	SWITCH, TACTIL (EJECT)				
S303	1-571-977-11	SWITCH, TACTIL (TV/VTR) (E600)				
S304	1-571-977-11	SWITCH, TACTIL (PROGRAM +) (E600)				
S305	1-571-977-11	SWITCH, TACTIL (PROGRAM -) (E600)				
S306	1-571-977-11	SWITCH, TACTIL (EASY SET UP) (E600)				
S307	1-571-977-11	SWITCH, TACTIL (RF CHANNEL, INPUT SELECTOR)				
S308	1-571-977-11	SWITCH, TACTIL (TAPE SPEED (SP/LP)) (E600)				
S309	1-571-977-11	SWITCH, TACTIL (QUICK TIMER) (E600)				
S310	1-571-977-11	SWITCH, TACTIL (EASY SET UP, AIDE MENU, VPS) (E500, E600VP, E700, E800)				
S312	1-571-977-11	SWITCH, TACTIL (RF CHANNEL) (E600)				
S341	1-572-908-11	SWITCH, SLIDE (EDIT ON/OFF)				
S342	1-572-907-11	SWITCH, SLIDE (COLOR SYSTEM AUTO PAL/ MESECAM NTSC) (E800BM/EE/EG)				
		< VIBRATOR >				
X301	1-579-463-11	VIBRATOR, CRYSTAL (32KHz)				
X302	1-579-126-11	VIBRATOR, CERAMIC (12MHz)				
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*	A-6782-392-A	MA-215 BOARD, COMPLETE (E700EX)				
*	A-6782-395-A	MA-215 BOARD, COMPLETE (E700AP)				
*	A-6782-396-A	MA-215 BOARD, COMPLETE (E700IT)				
*	A-6782-404-A	MA-215 BOARD, COMPLETE (E600VP, E700VP)				
*	A-6782-407-A	MA-215 BOARD, COMPLETE (E700UX)				
*	A-6782-413-A	MA-215 BOARD, COMPLETE (E600B, E700B)				
*	A-6782-416-A	MA-215 BOARD, COMPLETE (E700:NC1/NC2)				
*	A-6782-454-A	MA-215 BOARD, COMPLETE (E800NC)				
*	A-6782-456-A	MA-215 BOARD, COMPLETE (E800NP)				
*	A-6782-458-A	MA-215 BOARD, COMPLETE (E800AP)				
*	A-6782-459-A	MA-215 BOARD, COMPLETE (E800IT)				
*	A-6782-462-A	MA-215 BOARD, COMPLETE (E800BM)				
*	A-6782-465-A	MA-215 BOARD, COMPLETE (E800VC)				
*	A-6782-470-A	MA-215 BOARD, COMPLETE (E800EE/EG)				
*	A-6782-515-A	MA-215 BOARD, COMPLETE (E500AP/UX/VP)				

Ref. No.	Part No.	Description			Remark
*	A-6782-519-A	MA-215 BOARD, COMPLETE (E500CP)			
*	A-6782-521-A	MA-215 BOARD, COMPLETE (E500IT)			
		**********			
		(Ref. No 1,000 series)			
*	3-960-273-01	SPACER, TOP END			
*	3-960-274-01	SPACER, LED			
		< CAPACITOR >			
C001	1-163-033-91	CERAMIC CHIP	0.022uF		50V
C002	1-163-033-91	CERAMIC CHIP	0.022uF		50V
C003	1-126-096-11	ELECT	10uF	20%	35V
C004	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C006	1-124-126-00	ELECT	47uF	20%	10V
C007	1-124-635-00	ELECT	220uF	20%	6.3V
C008	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C009	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C025	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C026	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C071	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C072	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C073	1-124-455-00	ELECT	100uF	20%	16V
C074	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C075	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C076	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C077	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C078	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C079	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C101	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C102	1-124-126-00	ELECT	47uF	20%	10V
C103	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C104	1-126-233-11	ELECT	22uF	20%	50V
C105	1-124-443-00	ELECT	100uF	20%	10V
C106	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C108	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C109	1-124-925-11	ELECT	2.2uF	20%	100V
C110	1-124-477-11	ELECT	47uF	20%	25V
C111	1-124-925-11	ELECT	2.2uF	20%	100V
C210	1-124-584-00	ELECT	100uF	20%	10V
C211	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C212	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C213	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C214	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C254	1-130-489-00	MYLAR	0.033uF	5%	50V
C255	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C256	1-124-248-00	ELECT	22uF	20%	35V
C257	1-137-441-11	FILM	0.027uF	5%	50V
C258	1-124-261-00	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description		Remark	
C271	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C272	1-124-589-11	ELECT	47uF	20%	16V
C351	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C352	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C353	1-124-464-11	ELECT	0.22uF	20%	50V
C354	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C361	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C362	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C401	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C402	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C404	1-163-105-00	CERAMIC CHIP (E600B, E700B, E800BM/EE/EG)	33PF	5%	50V
C405	1-163-107-00	CERAMIC CHIP (E600B, E700B, E800BM/EE/EG)	39PF	5%	50V
C406	1-126-785-11	ELECT	47uF	20%	10V
C407	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C408	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C409	1-126-785-11	ELECT	47uF	20%	10V
C410	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C411	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C412	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C413	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C416	1-124-257-00	ELECT	2.2uF	20%	50V
C417	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C418	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C419	1-124-126-00	ELECT	47uF	20%	10V
C420	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C421	1-162-306-11	CERAMIC	0.01uF	20%	16V
C422	1-124-903-11	ELECT	1uF	20%	50V
C423	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C424	1-126-785-11	ELECT	47uF	20%	10V
C425	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C427	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C501	1-126-096-11	ELECT (EXCEPT E700EX/UX)	10uF	20%	35V
C502	1-126-096-11	ELECT	10uF	20%	35V
C503	1-124-907-11	ELECT	10uF	20%	50V
C504	1-124-126-00	ELECT (E600, E700, E800)	47uF	20%	10V
C505	1-163-031-11	CERAMIC CHIP (E600, E700, E800)	0.01uF		50V
C506	1-163-031-11	CERAMIC CHIP (E600, E700, E800)	0.01uF		50V
C507	1-124-126-00	ELECT (EXCEPT E500)	47uF	20%	10V
C509	1-163-031-11	CERAMIC CHIP (E600, E700, E800)	0.01uF		50V
C510	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C511	1-124-477-11	ELECT	47uF	20%	25V
C512	1-124-126-00	ELECT	47uF	20%	10V

Ref. No.	Part No.	Description		Remark	
C513	1-124-472-11	ELECT	470uF	20%	10V
C514	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C516	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C703	1-124-261-00	ELECT (E600, E700, E800)	10uF	20%	50V
C704	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C705	1-124-261-00	ELECT (E600, E700, E800)	10uF	20%	50V
C707	1-124-477-11	ELECT (E600, E700, E800)	47uF	20%	25V
C708	1-163-031-11	CERAMIC CHIP (E600, E700, E800)	0.01uF		50V
C710	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C715	1-126-785-11	ELECT (E600, E700, E800)	47uF	20%	10V
C716	1-124-261-00	ELECT (E600, E700, E800)	10uF	20%	50V
C717	1-124-261-00	ELECT (E600, E700, E800)	10uF	20%	50V
C718	1-124-248-00	ELECT (E600, E700, E800)	22uF	20%	35V
C727	1-124-589-11	ELECT	47uF	20%	16V
C728	1-124-443-00	ELECT	100uF	20%	10V
C729	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C851	1-164-159-11	CERAMIC	0.1uF		50V
C852	1-164-159-11	CERAMIC	0.1uF		50V
C853	1-164-159-11	CERAMIC	0.1uF		50V
C854	1-124-903-11	ELECT	1uF	20%	50V
C855	1-164-159-11	CERAMIC	0.1uF		50V
C856	1-137-370-11	FILM	0.01uF	5%	50V
C857	1-126-163-11	ELECT	4.7uF	20%	50V
C858	1-126-962-11	ELECT	3.3uF	20%	50V
C859	1-163-014-00	CERAMIC CHIP	0.0027uF	5%	50V
C860	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C861	1-124-925-11	ELECT	2.2uF	20%	100V
C862	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C863	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C864	1-126-233-11	ELECT	22uF	20%	50V
C865	1-126-233-11	ELECT	22uF	20%	50V
C866	1-124-252-00	ELECT	0.33uF	20%	50V
C867	1-124-907-11	ELECT	10uF	20%	50V
C881	1-104-696-11	FILM (E600, E700)	0.015uF	5%	100V
C881	1-137-612-11	FILM (E500, E800)	0.0068uF	5%	100V
C882	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C883	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C884	1-124-120-11	ELECT (E600, E700)	220uF	20%	25V
C884	1-126-101-11	ELECT (E500, E800)	100uF	20%	16V

Ref. No.	Part No.	Description			Remark
C889	1-137-453-11	FILM	560PF	5%	100V
C891	1-104-697-11	FILM (E500, E800)	0.047uF	5%	100V
C892	1-164-232-11	CERAMIC CHIP (E500, E800)	0.01uF		50V
C893	1-163-011-11	CERAMIC CHIP (E500, E800)	0.0015uF	10%	50V
C894	1-126-101-11	ELECT (E500, E800)	100uF	20%	16V
C901	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C902	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C903	1-124-443-00	ELECT (EXCEPT E500)	100uF	20%	10V
C904	1-163-077-91	CERAMIC CHIP (EXCEPT E500)	0.1uF		50V
C905	1-126-916-11	ELECT	1000uF	20%	6.3V
		< JACK >			
CJ501	1-568-016-11	SOCKET, PIN 21P			
CJ502	1-565-319-71	JACK, PIN 2P (EXCEPT E500)			
		< CONNECTOR >			
* CN051	1-766-537-11	CONNECTOR (HMD) 5P			
* CN071	1-766-716-11	CONNECTOR, BOARD TO BOARD 3P			
CN101	1-506-468-11	PIN, CONNECTOR 3P			
CN501	1-506-478-11	PIN, CONNECTOR 13P (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
CN502	1-766-998-41	CONNECTOR, FFC/FPC (LIF) 25P (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)			
CN701	1-506-473-11	PIN, CONNECTOR 8P (E500)			
CN702	1-506-477-11	PIN, CONNECTOR 12P (E500)			
CN881	1-506-469-11	PIN, CONNECTOR 4P			
* CN882	1-560-891-00	PIN, CONNECTOR 3P			
CN891	1-506-468-11	PIN, CONNECTOR 3P			
* CN901	1-573-843-11	CONNECTOR, BOARD TO BOARD 11P (EXCEPT E500)			
* CN902	1-573-843-11	CONNECTOR, BOARD TO BOARD 11P (EXCEPT E500)			
* CN903	1-766-715-11	CONNECTOR, BOARD TO BOARD 10P (EXCEPT E500IT, E600B, E700B/IT, E800BM/IT)			
CN904	1-766-992-11	CONNECTOR, FFC/FPC (LIF) 19P			
CN905	1-766-992-11	CONNECTOR, FFC/FPC (LIF) 19P			
CN907	1-573-852-11	CONNECTOR, BOARD TO BOARD 20P			
CN908	1-573-846-11	CONNECTOR, BOARD TO BOARD 14P			
* CN909	1-766-538-11	CONNECTOR, BOARD TO BOARD 8P			
CN910	1-770-017-11	CONNECTOR, BOARD TO BOARD 19P			
* CN912	1-766-717-11	CONNECTOR, BOARD TO BOARD 5P			
		< DIODE >			
D001	8-719-048-26	LED GL528V1 (TOP/END LED)			
D006	8-719-921-54	DIODE MTZJ-6.2B			
D007	8-719-921-54	DIODE MTZJ-6.2B			

Ref. No.	Part No.	Description	Remark
D071	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D206	8-719-801-48	DIODE 1SS193	
D251	8-719-801-48	DIODE 1SS193	
D252	8-719-101-50	DIODE RD5.1EL2	
D253	8-719-101-47	DIODE RD4.7EL2	
D401	8-719-801-78	DIODE 1SS184 (E600B, E700B, E800BM/EE/EG)	
D402	8-719-801-48	DIODE 1SS193	
D501	8-719-109-97	DIODE RD6.8ESB2	
D502	8-719-109-97	DIODE RD6.8ESB2	
D503	8-719-109-97	DIODE RD6.8ESB2	
D504	8-719-109-97	DIODE RD6.8ESB2	
D505	8-719-109-97	DIODE RD6.8ESB2 (E500CP, E600B, E700B, E800BM/NP/VC)	
D506	8-719-921-86	DIODE MTZJ-13	
D507	8-719-982-09	DIODE MTZJ-4.3	
D508	8-719-109-97	DIODE RD6.8ESB2 (E600, E700, E800)	
D509	8-719-109-97	DIODE RD6.8ESB2 (E600, E700, E800)	
D510	8-719-109-97	DIODE RD6.8ESB2	
D511	8-719-109-97	DIODE RD6.8ESB2	
D512	8-719-109-97	DIODE RD6.8ESB2 (E600, E700, E800)	
D513	8-719-109-97	DIODE RD6.8ESB2 (E600, E700, E800)	
D514	8-719-109-97	DIODE RD6.8ESB2 (E600, E700, E800)	
D515	8-719-109-97	DIODE RD6.8ESB2 (E600, E700, E800)	
D516	8-719-200-82	DIODE 11ES2 (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	
D517	8-719-108-12	DIODE RD9.1EW	
D518	8-719-108-12	DIODE RD9.1EW	
D519	8-719-108-12	DIODE RD9.1EW	
D520	8-719-108-12	DIODE RD9.1EW	
⚠D702	8-719-800-76	DIODE 1SS226 (E600/E700/E800)	
D708	8-719-801-48	DIODE 1SS193	
D709	8-719-109-85	DIODE RD5.1ESB2	
D710	8-719-911-19	DIODE 1SS119-25	
D851	8-719-801-78	DIODE 1SS184	
D852	8-719-801-48	DIODE 1SS193 (E600B, E700B, E800BM/NP/VC)	
D853	8-719-800-76	DIODE 1SS226 (E500)	
D854	8-719-801-48	DIODE 1SS193 (E600B, E700B, E800BM/NP/VC)	
D901	8-719-801-48	DIODE 1SS193	
D902	8-719-200-82	DIODE 11ES2	
D903	8-719-200-82	DIODE 11ES2	
D904	8-719-991-75	DIODE RB425D (EXCEPT E500)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		< FILTER >	
FL501	1-236-163-11	ENCAPSULATED COMPONENT	
FL502	1-236-163-11	ENCAPSULATED COMPONENT (E600, E700, E800)	
FL503	1-236-163-11	ENCAPSULATED COMPONENT (E600, E700, E800)	
FL504	1-236-163-11	ENCAPSULATED COMPONENT (E600, E700, E800)	
FL505	1-236-163-11	ENCAPSULATED COMPONENT	
FL506	1-236-163-11	ENCAPSULATED COMPONENT (E600, E700, E800)	
		< IC >	
IC002	8-759-100-95	IC uPC324G2	
IC071	8-759-294-26	IC BA6209-V2	
IC101	8-759-246-14	IC TA8823N	
IC201	8-752-855-11	IC CXP87240-050Q	
IC251	8-759-702-02	IC NJM062M	
IC351	8-759-097-80	IC HD49783FP	
IC401	8-759-288-96	IC MB90089PF-118-ER	
IC402	8-759-164-09	IC LA7218M	
IC501	8-759-927-56	IC BA7021	
IC502	8-759-009-06	IC MC14052BF (E600, E700, E800)	
IC503	8-759-924-46	IC BA4560F (E600, E700, E800)	
IC851	8-759-268-02	IC BA7796FS-E2	
		< JUMPER RESISTOR >	
JR010	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR011	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR012	1-216-295-91	CONDCTOR, CHIP (2012)	
JR013	1-216-295-91	CONDCTOR, CHIP (2012)	
JR014	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR016	1-216-295-91	CONDCTOR, CHIP (2012)	
JR104	1-216-295-91	CONDCTOR, CHIP (2012)	(E500CP)
JR201	1-216-295-91	CONDCTOR, CHIP (2012)	
JR203	1-216-295-91	CONDCTOR, CHIP (2012)	(E500)
JR204	1-216-295-91	CONDCTOR, CHIP (2012)	(E500)
JR360	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR361	1-216-295-91	CONDCTOR, CHIP (2012)	
JR362	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR404	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500CP, E600B, E700B, E800BM/VC)	
JR501	1-216-295-91	CONDCTOR, CHIP (2012)	(EXCEPT E500, E700)
JR502	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500CP, E600B. E700B/EX/UX, E800BM/NP/VC)	
JR504	1-216-295-91	CONDCTOR, CHIP (2012)	(E500)
JR505	1-216-295-91	CONDCTOR, CHIP (2012) (E500CP, E600B, E700B, E800BM/NP/VC)	
JR511	1-216-295-91	CONDCTOR, CHIP (2012)	(E500)
JR513	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500CP/E600B/E700B/E800BM/VC)	
JR514	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500, E600B, E700EX/UX, E800BM/NP/VC)	
JR515	1-216-295-91	CONDCTOR, CHIP (2012) (E500AP/IT/UX/VP, E600, E700, E800)	
JR516	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500CP, E600B, E700B, E800BM/VC)	
JR517	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500, E600B, E700B, E800BM/NP/VC)	
JR518	1-216-296-00	METAL CHIP 0 5% 1/8W	(E500)
JR519	1-216-295-91	CONDCTOR, CHIP (2012)	(E500CP)
JR520	1-216-295-91	CONDCTOR, CHIP (2012)	(E500CP)
JR522	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500)	
JR525	1-216-295-91	CONDCTOR, CHIP (2012) (E700EX/UX)	
JR526	1-216-295-91	CONDCTOR, CHIP (2012) (E700EX/UX)	
JR528	1-216-295-91	CONDCTOR, CHIP (2012)	(E500CP, E600B, E700B, E800BM/NP/VC)
JR541	1-216-295-91	CONDCTOR, CHIP (2012)	(E600B, E700B/EX/UX, E800BM/NP/VC)
JR542	1-216-295-91	CONDCTOR, CHIP (2012)	(E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)
JR543	1-216-295-91	CONDCTOR, CHIP (2012)	(E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)
JR704	1-216-295-91	CONDCTOR, CHIP (2012)	
JR705	1-216-295-91	CONDCTOR, CHIP (2012)	
JR713	1-216-296-00	METAL CHIP 0 5% 1/8W	(E500)
JR715	1-216-295-91	CONDCTOR, CHIP (2012) (E600B, E700B, E800BM)	
JR717	1-216-295-91	CONDCTOR, CHIP (2012) (E600B, E700B, E800BM)	
JR721	1-216-295-91	CONDCTOR, CHIP (2012) (E600, E700, E800)	
JR891	1-216-295-91	CONDCTOR, CHIP (2012)	(E600, E700)
JR902	1-216-295-91	CONDCTOR, CHIP (2012)	(EXCEPT E800BM/IT)
JR903	1-216-295-91	CONDCTOR, CHIP (2012)	(E500)
JR904	1-216-295-91	CONDCTOR, CHIP (2012)	(E500, E800)
JR906	1-216-295-91	CONDCTOR, CHIP (2012)	
JR908	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500IT, E600B, E700B/IT, E800BM/IT)	
		< COIL >	
L101	1-410-482-31	INDUCTOR 100uH	
L202	1-410-470-11	INDUCTOR 10uH	
L251	1-410-513-11	INDUCTOR 22uH	
L401	1-410-482-31	INDUCTOR 100uH	

Ref. No.	Part No.	Description	Remark
L402	1-410-515-11	INDUCTOR 33uH (E600B, E700B, E800BM/EE/EG)	
L403	1-408-974-21	INDUCTOR 22uH	
L404	1-410-482-31	INDUCTOR 100uH	
L501	1-410-509-11	INDUCTOR 10uH	
L502	1-410-482-31	INDUCTOR 100uH (E600, E700, E800)	
L503	1-410-482-31	INDUCTOR 100uH (E600, E700, E800)	
L505	1-410-482-31	INDUCTOR 100uH	
L506	1-410-501-11	INDUCTOR 2.2uH	
L701	1-414-183-41	INDUCTOR 10uH (E600, E700, E800)	
L703	1-414-183-41	INDUCTOR 10uH (E600, E700, E800)	
L704	1-414-183-41	INDUCTOR 10uH (E600, E700, E800)	
L710	1-410-501-11	INDUCTOR 2.2uH (E600, E700, E800)	
L712	1-410-501-11	INDUCTOR 2.2uH (E600, E700, E800)	
L851	1-410-482-31	INDUCTOR 100uH	
L881	1-410-687-11	INDUCTOR 1.2mH	
L891	1-410-687-11	INDUCTOR 1.2mH (E500, E800)	
		< CABLE >	
P701	1-555-110-00	CABLE, PIN (E600, E700, E800)	
		< PHOTO INTERRUPTER >	
PH001	8-749-010-19	PHOTO INTERRUPTER GP3S113	
PH002	8-749-010-20	PHOTO INTERRUPTER GP3S114	
		< IC LINK >	
⚠PS201	1-532-727-11	LINK, IC 0.25A (ICP-N5)	
⚠PS887	1-532-727-11	LINK, IC 0.25A (ICP-N5)	
		< TRANSISTOR >	
Q001	8-729-025-92	PHOTO TRANSISTOR PT380F	
Q002	8-729-025-92	PHOTO TRANSISTOR PT380F	
Q003	8-729-281-53	TRANSISTOR 2SC1815-GR	
Q351	8-729-901-06	TRANSISTOR DTA144EK	
Q353	8-729-421-19	TRANSISTOR UN2213	
Q354	8-729-010-25	TRANSISTOR MSD601-RT1	
Q401	8-729-421-19	TRANSISTOR UN2213 (E600B, E700B, E800BM/EE/EG)	
Q402	8-729-901-06	TRANSISTOR DTA144EK	
Q404	8-729-010-05	TRANSISTOR MSB709-RT1	
Q405	8-729-010-25	TRANSISTOR MSD601-RT1 (E600B, E700B, E800BM/EE/EG)	
Q406	8-729-010-05	TRANSISTOR MSB709-RT1	
Q407	8-729-010-05	TRANSISTOR MSB709-RT1	
Q408	8-729-010-25	TRANSISTOR MSD601-RT1 (E500CP, E600B, E700B, E800BM/EE/EG)	
Q501	8-729-010-05	TRANSISTOR MSB709-RT1	
Q502	8-729-424-56	TRANSISTOR UN211L	
Q503	8-729-421-19	TRANSISTOR UN2213	
Q702	8-729-421-19	TRANSISTOR UN2213	
⚠Q703	8-729-173-38	TRANSISTOR 2SA733-K (E600, E700, E800)	
Q704	8-729-010-05	TRANSISTOR MSB709-RT1 (E600, E700, E800)	
Q707	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q709	8-729-010-25	TRANSISTOR MSD601-RT1 (E500)	
Q710	8-729-010-25	TRANSISTOR MSD601-RT1	
Q711	8-729-010-25	TRANSISTOR MSD601-RT1	
Q712	8-729-010-25	TRANSISTOR MSD601-RT1	
Q713	8-729-010-05	TRANSISTOR MSB709-RT1	
Q851	8-729-010-25	TRANSISTOR MSD601-RT1 (E500)	
Q881	8-729-012-31	TRANSISTOR 2SC4040-TL2-Q	
Q882	8-729-216-22	TRANSISTOR 2SA1162-G	
Q889	8-729-010-25	TRANSISTOR MSD601-RT1	
Q891	8-729-012-31	TRANSISTOR 2SC4040-TL2-Q (E500, E800)	
Q892	8-729-216-22	TRANSISTOR 2SA1162-G (E500, E800)	
		< RESISTOR >	
R001	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R002	1-247-881-00	CARBON 120K 5% 1/4W	
R003	1-249-437-11	CARBON 47K 5% 1/4W	
R004	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R005	1-249-413-11	CARBON 470 5% 1/4W F	
R006	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R007	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R008	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R009	1-216-031-00	METAL CHIP 180 5% 1/10W	
R010	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R011	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R012	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R015	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R016	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R017	1-249-400-11	CARBON 39 5% 1/4W F	
R018	1-249-400-11	CARBON 39 5% 1/4W F	
R019	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R051	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R052	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R053	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R054	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R071	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R072	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R101	1-216-119-00	METAL CHIP 820K 5% 1/10W	
R102	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R103	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R104	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R105	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R106	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
R107	1-216-037-00	METAL CHIP	330	5%	1/10W
R108	1-216-121-00	METAL CHIP	1M	5%	1/10W
R109	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R110	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R111	1-216-097-00	METAL CHIP	100K	5%	1/10W
R126	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R202	1-216-089-00	METAL CHIP	47K	5%	1/10W
R214	1-216-049-00	METAL CHIP	1K	5%	1/10W
R217	1-216-077-00	METAL CHIP	15K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R224	1-249-421-11	CARBON	2.2K	5%	1/4W F
R225	1-216-089-00	METAL CHIP	47K	5%	1/10W
R226	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R256	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R257	1-249-429-11	CARBON	10K	5%	1/4W
R258	1-216-049-00	METAL CHIP	1K	5%	1/10W
R262	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R263	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R264	1-216-103-91	METAL GLAZE	180K	5%	1/10W
R265	1-216-073-00	METAL CHIP	10K	5%	1/10W
R266	1-216-079-00	METAL CHIP	18K	5%	1/10W
R271	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R274	1-216-083-00	METAL CHIP	27K	5%	1/10W
R275	1-216-093-00	METAL CHIP	68K	5%	1/10W
R276	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R277	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R278	1-216-224-91	METAL GLAZE	12K	5%	1/8W
R351	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R352	1-216-073-00	METAL CHIP	10K	5%	1/10W
R353	1-216-073-00	METAL CHIP	10K	5%	1/10W
R354	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R355	1-216-073-00	METAL CHIP	10K	5%	1/10W
R356	1-247-889-00	CARBON	270K	5%	1/4W
R361	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R362	1-216-049-00	METAL CHIP	1K	5%	1/10W
R363	1-216-049-00	METAL CHIP	1K	5%	1/10W
R364	1-216-232-00	METAL GLAZE	27K	5%	1/8W
R365	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R366	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R367	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R368	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R369	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R370	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R371	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R372	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R373	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R374	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R401	1-216-049-00	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R402	1-216-073-00	METAL CHIP (E600B, E700B, E800BM/EE/EG)	10K	5%	1/10W
R403	1-216-073-00	METAL CHIP (E600B, E700B, E800BM/EE/EG)	10K	5%	1/10W
R404	1-216-073-00	METAL CHIP	10K	5%	1/10W
R405	1-216-295-91	CONDCTOR, CHIP (2012)			
R406	1-216-295-91	CONDCTOR, CHIP (2012)			
R407	1-249-414-11	CARBON	560	5%	1/4W F
R408	1-216-101-00	METAL CHIP	150K	5%	1/10W
R409	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R410	1-216-043-91	METAL GLAZE	560	5%	1/10W
R411	1-216-025-00	METAL CHIP	100	5%	1/10W
R412	1-216-295-91	CONDCTOR, CHIP (2012)			
R413	1-216-295-91	CONDCTOR, CHIP (2012)			
R414	1-216-081-00	METAL CHIP	22K	5%	1/10W
R415	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R416	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R417	1-216-033-00	METAL CHIP	220	5%	1/10W
R421	1-216-081-00	METAL CHIP	22K	5%	1/10W
R422	1-216-049-00	METAL CHIP (E500CP, E600B, E700B, E800BM/NP/VC)	1K	5%	1/10W
R423	1-216-073-00	METAL CHIP	10K	5%	1/10W
R424	1-216-033-00	METAL CHIP (E500CP, E600B, E700B, E800BM/NP/VC)	220	5%	1/10W
R425	1-216-033-00	METAL CHIP (E500CP, E600B, E700B, E800BM/NP/VC)	220	5%	1/10W
R501	1-216-017-00	METAL CHIP (EXCEPT E700EX/UX)	47	5%	1/10W
R502	1-216-017-00	METAL CHIP	47	5%	1/10W
R503	1-216-226-00	METAL GLAZE (E600, E700, E800)	15K	5%	1/8W
R504	1-216-079-00	METAL CHIP (E600, E700, E800)	18K	5%	1/10W
R505	1-216-081-00	METAL CHIP (EXCEPT E500, E700EX/UX)	22K	5%	1/10W
R506	1-216-085-00	METAL CHIP (EXCEPT E500, E700EX/UX)	33K	5%	1/10W
R506	1-216-295-91	CONDCTOR, CHIP (2012) (E700EX/UX)			
R507	1-216-091-00	METAL CHIP (E600, E700, E800)	56K	5%	1/10W
R508	1-216-238-91	METAL GLAZE (E600, E700, E800)	47K	5%	1/8W
R509	1-216-238-91	METAL GLAZE (E600, E700, E800)	47K	5%	1/8W
R510	1-216-079-00	METAL CHIP (E600, E700, E800)	18K	5%	1/10W
R511	1-216-240-00	METAL GLAZE (E600, E700, E800)	56K	5%	1/8W
R512	1-216-234-00	METAL GLAZE (EXCEPT E500, E700EX/UX)	33K	5%	1/8W

Ref. No.	Part No.	Description			Remark
R512	1-216-296-00	METAL CHIP (E700EX/UX)	0	5%	1/8W
R513	1-216-081-00	METAL CHIP (EXCEPT E500, E700EX/UX)	22K	5%	1/10W
R514	1-216-077-00	METAL CHIP (E600, E700, E800)	15K	5%	1/10W
R515	1-216-295-91	CONDCTOR, CHIP (2012) (E500)			
R515	1-216-085-00	METAL CHIP (E600, E700, E800)	33K	5%	1/10W
R516	1-249-435-11	CARBON (E600, E700, E800)	33K	5%	1/4W
R517	1-216-037-00	METAL CHIP	330	5%	1/10W
R519	1-249-408-11	CARBON	180	5%	1/4W F
R520	1-247-811-31	CARBON	150	5%	1/4W
R521	1-216-170-00	METAL GLAZE	68	5%	1/8W
R522	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R523	1-216-049-00	METAL CHIP	1K	5%	1/10W
R524	1-216-022-00	METAL CHIP	75	5%	1/10W
R525	1-216-049-00	METAL CHIP (E500CP, E600B, E700B, E800BM/NP/VC)	1K	5%	1/10W
R526	1-216-190-00	METAL GLAZE	470	5%	1/8W
R527	1-216-190-00	METAL GLAZE	470	5%	1/8W
R528	1-216-043-91	METAL GLAZE (EXCEPT E500)	560	5%	1/10W
R529	1-216-043-91	METAL GLAZE (EXCEPT E500)	560	5%	1/10W
R530	1-216-043-91	METAL GLAZE	560	5%	1/10W
R531	1-216-043-91	METAL GLAZE (EXCEPT E500)	560	5%	1/10W
R532	1-216-295-91	CONDCTOR, CHIP (2012)			
R533	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E700EX)			
R534	1-216-065-00	METAL CHIP (EXCEPT E500)	4.7K	5%	1/10W
R535	1-216-065-00	METAL CHIP (EXCEPT E500)	4.7K	5%	1/10W
R701	1-216-041-00	METAL CHIP (EXCEPT E500)	470	5%	1/10W
R702	1-216-041-00	METAL CHIP (EXCEPT E500)	470	5%	1/10W
R703	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500)			
R704	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E500)			
R705	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R706	1-216-083-00	METAL CHIP (EXCEPT E700EX)	27K	5%	1/10W
R706	1-216-105-91	METAL GLAZE (E600B, E700B, E800BM)	220K	5%	1/10W
R709	1-216-089-00	METAL CHIP (E600, E700, E800)	47K	5%	1/10W
R710	1-216-295-91	CONDCTOR, CHIP (2012) (E600, E700, E800)			
R711	1-216-073-00	METAL CHIP (E600, E700, E800)	10K	5%	1/10W
R712	1-216-025-00	METAL CHIP (E600, E700, E800)	100	5%	1/10W
R721	1-216-037-00	METAL CHIP (E600, E700, E800)	330	5%	1/10W
R722	1-247-807-31	CARBON (E600, E700, E800)	100	5%	1/4W
R724	1-249-415-11	CARBON	680	5%	1/4W F
R725	1-216-041-00	METAL CHIP (E600B, E700B, E800BM)	470	5%	1/10W
R727	1-216-077-00	METAL CHIP	15K	5%	1/10W
R728	1-216-075-00	METAL CHIP	12K	5%	1/10W
R731	1-216-025-00	METAL CHIP (E600, E700, E800)	100	5%	1/10W
R732	1-216-025-00	METAL CHIP (E600, E700, E800)	100	5%	1/10W
R738	1-216-025-00	METAL CHIP (E600, E700, E800)	100	5%	1/10W
R739	1-216-025-00	METAL CHIP (E600, E700, E800)	100	5%	1/10W
R741	1-216-049-00	METAL CHIP	1K	5%	1/10W
R742	1-216-049-00	METAL CHIP	1K	5%	1/10W
R743	1-216-049-00	METAL CHIP	1K	5%	1/10W
R744	1-216-043-91	METAL GLAZE	560	5%	1/10W
R851	1-216-075-00	METAL CHIP (E600, E700, E800)	12K	5%	1/10W
R851	1-216-093-00	METAL CHIP	68K	5%	1/10W (E500)
R852	1-216-069-00	METAL CHIP (E600, E700, E800)	6.8K	5%	1/10W
R852	1-216-071-00	METAL CHIP	8.2K	5%	1/10W (E500)
R853	1-216-075-00	METAL CHIP	12K	5%	1/10W (E500)
R853	1-216-095-00	METAL CHIP (E600B, E700B, E800/BM/NP/VC)	82K	5%	1/10W
R854	1-216-053-00	METAL CHIP	1.5K	5%	1/10W (E500)
R854	1-216-081-00	METAL CHIP (E600B, E700B, E800/BM/NP/VC)	22K	5%	1/10W
R855	1-216-093-00	METAL CHIP	68K	5%	1/10W
R856	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R857	1-216-085-00	METAL CHIP	33K	5%	1/10W
R858	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R859	1-216-083-00	METAL CHIP	27K	5%	1/10W (E500)
R859	1-216-295-91	CONDCTOR, CHIP (2012) (E600, E700, E800)			
R860	1-216-083-00	METAL CHIP (E600, E700, E800)	27K	5%	1/10W
R860	1-216-295-91	CONDCTOR, CHIP (2012) (E500)			
R861	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R862	1-216-109-00	METAL CHIP	330K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R863	1-216-073-00	METAL CHIP	10K	5%	1/10W
R864	1-216-041-00	METAL CHIP	470	5%	1/10W
R865	1-216-089-00	METAL CHIP	47K	5%	1/10W
R866	1-216-099-00	METAL CHIP	120K	5%	1/10W
R867	1-216-075-00	METAL CHIP	12K	5%	1/10W
R868	1-216-083-00	METAL CHIP	27K	5%	1/10W
R869	1-216-081-00	METAL CHIP	22K	5%	1/10W
R870	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R871	1-216-073-00	METAL CHIP	10K	5%	1/10W
R872	1-216-097-00	METAL CHIP	100K	5%	1/10W
R873	1-216-043-91	METAL GLAZE	560	5%	1/10W (E500)
R873	1-216-295-91	CONDCTOR, CHIP (2012) (E600, E700, E800)			
R874	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (E500)
R875	1-249-432-11	CARBON (E600, E700, E800)	18K	5%	1/4W
R876	1-216-001-00	METAL CHIP	10	5%	1/10W
R877	1-216-049-00	METAL CHIP	1K	5%	1/10W
R881	1-216-081-00	METAL CHIP	22K	5%	1/10W
⚠R882	1-249-389-11	CARBON (E600, E700)	4.7	5%	1/4W F
⚠R882	1-249-395-11	CARBON (E500, E800)	15	5%	1/4W F
R883	1-249-417-11	CARBON	1K	5%	1/4W F
R884	1-216-097-00	METAL CHIP (E500, E800)	100K	5%	1/10W
R884	1-216-689-11	METAL CHIP (E600, E700)	39K	0.5%	1/10W
R887	1-216-295-91	CONDCTOR, CHIP (2012)			
R891	1-216-083-00	METAL CHIP (E500, E800)	27K	5%	1/10W
R892	1-249-394-11	CARBON (E500, E800)	12	5%	1/4W F
R893	1-249-417-11	CARBON (E500, E800)	1K	5%	1/4W F
R894	1-216-097-00	METAL CHIP (E500, E800)	100K	5%	1/10W
R896	1-216-089-00	METAL CHIP	47K	5%	1/10W
R897	1-216-073-00	METAL CHIP	10K	5%	1/10W
R898	1-216-085-00	METAL CHIP	33K	5%	1/10W
R899	1-216-095-00	METAL CHIP	82K	5%	1/10W
R903	1-208-800-11	METAL CHIP (EXCEPT E500)	5.6K	0.50%	1/10W
R904	1-208-784-11	METAL CHIP (EXCEPT E500)	1.2K	0.50%	1/10W
R905	1-216-049-00	METAL CHIP (EXCEPT E500)	1K	5%	1/10W
R906	1-216-049-00	METAL CHIP (EXCEPT E500)	1K	5%	1/10W

Ref. No.	Part No.	Description	Remark
		< RF MODULATOR >	
⚠RF701	1-467-958-21	MODULATOR, RF (RFU-2100) (E600, E700, E800)	
		< VARIABLE RESISTOR >	
RV201	1-238-019-11	RES, ADJ, CARBON 47K (AF SW POS) (EXCEPT E500)	
RV202	1-238-019-11	RES, ADJ, CARBON 47K (RF SW POS)	
RV887	1-238-019-11	RES, ADJ, CARBON 47K (BIAS)	
		< SWITCH >	
S002	1-570-953-11	SWITCH, PUSH (1 KEY)	
		< TRANSFORMER >	
T881	1-423-413-11	TRANSFORMER, BIAS OSCILLATION (E500, E800)	
T881	1-423-414-11	TRANSFORMER, BIAS OSCILLATION (E600, E700)	
T891	1-423-415-11	TRANSFORMER, BIAS OSCILLATION (E500, E800)	
		< TUNER >	
⚠TU701	1-693-267-11	TUNER, IF (BTF-3WC401) (E600VP, E700AP/IT/VP, E800AP/IT/VC)	
⚠TU701	1-693-269-11	TUNER, IF (BTF-3WC441) (E600B, E700B, E800BM)	
⚠TU701	1-693-274-11	TUNER, IF (BTF-3WC431) (E700EX)	
⚠TU701	1-693-272-11	TUNER, IF (BTF-3WC411) (E700, E800NC/NP)	
⚠TU701	1-693-273-11	TUNER, IF (BTF-3WU601) (E700UX)	
⚠TU701	1-693-268-11	TUNER, IF (BTF-3WC422) (E800EE/EG)	
		< VIBRATOR >	
X201	1-760-494-11	VIBRATOR, CRYSTAL (16MHz)	
X401	1-577-289-11	VIBRATOR, CRYSTAL (17.73MHz)	
X402	1-577-165-11	VIBLATOR, CERAMIC (500kHz)	
**********			
*	A-6782-400-A	MF-254 BOARD, COMPLETE ********** (Ref. No 3,000 series)	
		< CAPACITOR >	
C401	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C402	1-124-584-00	ELECT 100uF 20%	10V
		< CONNECTOR >	
CN401	1-766-863-11	CONNECTOR, BOARD TO BOARD 14P	
* CN402	1-695-822-11	CONNECTOR, BOARD TO BOARD 8P	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D403	8-719-045-62	LED SLR-342VC-A-47 (● REC)			
D404	8-719-045-63	LED SLR-342YC-A-47 (REC (ILM))			
D405	8-719-045-63	LED SLR-342YC-A-47 (REC (ILM))			
D406	8-719-045-62	LED SLR-342VC-A-47 (TIMER (ILM))			
D408	8-719-045-63	LED SLR-342YC-A-47 (TIMER (ILM))			
D409	8-719-045-63	LED SLR-342YC-A-47 (TIMER (ILM))			
D410	8-719-051-17	LED SLR-342DCT31 (❚❚ PAUSE)			
D415	8-719-200-82	DIODE 11ES2			
D424	8-719-045-63	LED SLR-342YC-A-47 (REC (TLM))			
D425	8-719-045-63	LED SLR-342YC-A-47 (REC (TLM))			
D428	8-719-045-63	LED SLR-342YC-A-47 (TIMER (TLM))			
D429	8-719-045-63	LED SLR-342YC-A-47 (TIMER (TLM))			
		< IC >			
IC401	8-752-815-96	IC CXP2001M			
		< RESISTOR >			
R401	1-216-032-00	METAL CHIP	200	5%	1/10W
R402	1-216-032-00	METAL CHIP	200	5%	1/10W
R403	1-216-032-00	METAL CHIP	200	5%	1/10W
R404	1-216-166-00	METAL GLAZE	47	5%	1/8W
R405	1-216-017-00	METAL CHIP	47	5%	1/10W
R406	1-216-032-00	METAL CHIP	200	5%	1/10W
R408	1-216-017-00	METAL CHIP	47	5%	1/10W
R409	1-216-017-00	METAL CHIP	47	5%	1/10W
R410	1-216-181-11	METAL GLAZE	200	5%	1/8W
R415	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R416	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R417	1-216-049-00	METAL CHIP	1K	5%	1/10W
R418	1-216-049-00	METAL CHIP	1K	5%	1/10W
R419	1-216-032-00	METAL CHIP	200	5%	1/10W
R420	1-216-032-00	METAL CHIP	200	5%	1/10W
R422	1-216-032-00	METAL CHIP	200	5%	1/10W
R423	1-216-032-00	METAL CHIP	200	5%	1/10W
R424	1-216-032-00	METAL CHIP	200	5%	1/10W
R425	1-216-032-00	METAL CHIP	200	5%	1/10W
R426	1-216-032-00	METAL CHIP	200	5%	1/10W
R427	1-216-032-00	METAL CHIP	200	5%	1/10W
R428	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R429	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R430	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S401	1-762-172-21	SWITCH, ROTARY (◀◀ X2 1 1/5 PLAY▷ STOP■ 1/5 1 X2 ▶▶)			
S403	1-571-977-11	SWITCH, TACTIL (● REC)			
S410	1-571-977-11	SWITCH, TACTIL (❚❚ PAUSE)			

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	A-6782-405-A	PS-328 BOARD, COMPLETE (E600, E700, E800AP/BM/IT/NC/NP/VC)
*	A-6782-471-A	PS-328 BOARD, COMPLETE (E800EE/EG)
	A-6782-511-A	PS-328 BOARD, COMPLETE (E500UX)
*	A-6782-516-A	PS-328 BOARD, COMPLETE (E500AP/CP/IT/VP)

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(Ref. No 3,000 series)

*	3-951-893-01	HEAT SINK
	7-685-646-81	SCREW +BVTP 3X8 TYPE2

< CAPACITOR >

Ref. No.	Part No.	Description			
⚠C101	1-104-706-11	FILM	0.22uF	20%	250V
⚠C102	1-104-705-11	FILM	0.1uF	20%	250V
⚠C103	1-107-405-11	ELECT	68uF	20%	400V
⚠C104	1-164-320-11	CERAMIC	0.001uF	10%	400V
⚠C105	1-164-320-11	CERAMIC	0.001uF	10%	400V
⚠C106	1-164-320-11	CERAMIC	0.001uF	10%	400V
⚠C107	1-164-320-11	CERAMIC	0.001uF	10%	400V
⚠C108	1-164-320-11	CERAMIC	0.001uF	10%	400V
C121	1-126-103-11	ELECT	470uF	20%	16V
C122	1-124-473-11	ELECT	1000uF	20%	10V
C125	1-126-233-11	ELECT	22uF	20%	50V
C131	1-128-499-11	ELECT	220uF	20%	16V
C132	1-126-233-11	ELECT	22uF	20%	50V
C133	1-124-477-11	ELECT	47uF	20%	25V
C141	1-124-477-11	ELECT	47uF	20%	25V
C142	1-126-101-11	ELECT	100uF	20%	16V
C161	1-124-126-00	ELECT	47uF	20%	10V
C162	1-124-442-00	ELECT	330uF	20%	6.3V
C171	1-124-604-00	ELECT	330uF	20%	10V
C181	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C182	1-124-477-11	ELECT	47uF	20%	25V
C183	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C184	1-124-910-11	ELECT	47uF	20%	50V
C185	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C186	1-124-910-11	ELECT	47uF	20%	50V
C187	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C188	1-124-910-11	ELECT	47uF	20%	50V
C189	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C190	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C191	1-124-916-11	ELECT (E600, E700, E800)	22uF	20%	63V

< CONNECTOR >

⚠CJ101	1-251-134-11	INLET, AC (NONPOLAR) (AC IN ~)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CN101	1-770-018-11	CONNECTOR, BOARD TO BOARD 19P	
* CN102	1-695-823-11	CONNECTOR, BOARD TO BOARD 8P	
		< COMPOSITION CIRCUIT BLOCK >	
⚠CP101	1-413-897-11	POWER BLOCK (EXCEPT E500UX, E700UX)	
⚠CP101	1-413-940-11	POWER BLOCK (E500UX, E700UX)	
⚠CP102	1-467-811-11	UNIT, DC-DC CONVERTER	
		< DIODE >	
⚠D101	8-719-510-06	DIODE S1WB60	
D131	8-719-200-82	DIODE 11ES2	
D161	8-719-911-19	DIODE 1SS119	
D162	8-719-109-85	DIODE RD5.1ESB2	
		< FUSE >	
⚠F101	1-576-228-11	FUSE (H.B.C.)	
		< FUSE HOLDER >	
FH101	1-533-293-11	FUSE HOLDER	
FH102	1-533-293-11	FUSE HOLDER	
		< IC >	
⚠IC141	8-759-189-48	IC PQ12RE11	
		< JUMPER RESISTOR >	
JR101	1-216-295-91	CONDCTOR, CHIP (2012) (E800EE/EG)	
		< COIL >	
⚠L121	1-403-588-11	COIL, CHOKE 22uH	
⚠L122	1-403-588-11	COIL, CHOKE 22uH	
L122	1-403-588-11	COIL, CHOKE 22uH	
L181	1-408-409-00	INDUCTOR 10uH	
L182	1-414-142-11	INDUCTOR 1uH	
L183	1-414-142-11	INDUCTOR 1uH	
		< LINE FILTER >	
⚠LF101	1-409-977-11	FILTER, LINE	
⚠LF102	1-409-977-11	FILTER, LINE	
		< IC LINK >	
⚠PS121	1-532-637-00	LINK, IC 1.0A (ICP-N25)	
⚠PS122	1-532-637-00	LINK, IC 1.0A (ICP-N25)	
⚠PS123	1-532-637-00	LINK, IC 1.0A (ICP-N25)	
⚠PS181	1-532-605-00	LINK, IC 0.4A (ICP-N10)	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
⚠Q131	8-729-140-93	TRANSISTOR 2SB733-34	
Q132	8-729-421-22	TRANSISTOR UN2211	
⚠Q161	8-729-140-98	TRANSISTOR 2SD773-34	
		< RESISTOR >	
⚠R101	1-214-947-00	METAL 2.7M 1% 1/2W	
R112	1-216-089-00	METAL CHIP 47K 5% 1/10W (E800EE/EG)	
R125	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R131	1-249-417-11	CARBON 1K 5% 1/4W	F
R132	1-216-430-11	METAL OXIDE 390 5% 1W	F
R133	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R141	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R161	1-249-412-11	CARBON 390 5% 1/4W	F
R182	1-249-478-11	CARBON 2.2 5% 1/2W	F
R183	1-216-479-11	METAL OXIDE 560 5% 3W (E600/E700/E800)	F
		< SWITCH >	
S101	1-762-211-11	SWITCH, SLIDE (NTSC PB ON PAL TV/NTSC 4.43) (E800EE/EG)	
**********			
*	A-6782-401-A	PV-12 BOARD, COMPLETE (EXCEPT E500IT, E600B, E700B/IT, E800BM/IT) ********** (Ref. No 3,000 series)	
		< CAPACITOR >	
C651	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
C652	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C653	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V	
C655	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C656	1-126-154-11	ELECT 47uF 20% 6.3V	
C657	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
C658	1-126-157-11	ELECT 10uF 20% 16V	
C661	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
C662	1-126-154-11	ELECT 47uF 20% 6.3V	
		< CONNECTOR >	
CN651	1-766-719-11	CONNECTOR, BOARD TO BOARD 10P	
		< DIODE >	
D651	8-719-911-19	DIODE 1SS119	
D652	8-719-104-34	DIODE 1S2836	
D653	8-719-104-34	DIODE 1S2836	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
		< IC >			
IC651	8-759-289-73	IC SDA5649X-GEG			
IC652	8-752-850-71	IC CXP80316-031Q			
		< JUMPER RESISTOR >			
JR651	1-216-296-00	METAL CHIP	0	5%	1/8W
JR652	1-216-296-00	METAL CHIP	0	5%	1/8W
		< COIL >			
L651	1-410-509-11	INDUCTOR 10uH			
L652	1-410-509-11	INDUCTOR 10uH			
		< TRANSISTOR >			
Q651	8-729-010-05	TRANSISTOR MSB709-RT1			
		< RESISTOR >			
R651	1-216-073-00	METAL CHIP	10K	5%	1/10W
R652	1-216-073-00	METAL CHIP	10K	5%	1/10W
R653	1-216-097-00	METAL CHIP	100K	5%	1/10W
R654	1-216-117-00	METAL CHIP	680K	5%	1/10W
R655	1-216-123-11	METAL CHIP	1.2M	5%	1/10W
R656	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R657	1-216-123-11	METAL CHIP	1.2M	5%	1/10W
R658	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R659	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R660	1-216-079-00	METAL CHIP	18K	5%	1/10W
R661	1-216-083-00	METAL CHIP	27K	5%	1/10W
R662	1-216-049-00	METAL CHIP	1K	5%	1/10W
R663	1-216-025-00	METAL CHIP	100	5%	1/10W
R664	1-216-097-00	METAL CHIP	100K	5%	1/10W
		< VIBRATOR >			
X651	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			
**********					
*	A-6782-402-A	RV-37 BOARD, COMPLETE (E600VP, E700:NC1/NC2, E700AP/EX/IT/UX/VP)			
*	A-6782-411-A	RV-37 BOARD, COMPLETE (E600B, E700B)			
*	A-6782-460-A	RV-37 BOARD, COMPLETE (E800BM)			
*	A-6782-463-A	RV-37 BOARD, COMPLETE (E800AP/IT/NC/NP/VC)			
*	A-6782-468-A	RV-37 BOARD, COMPLETE (E800EE/EG)			
*	A-6782-513-A	RV-37 BOARD, COMPLETE (E500)			
		********** (Ref. No 2,000series)			
*	3-957-421-11	HOLDER, SECAM IC (E600B, E700B, E800BM)			

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C002	1-163-123-00	CERAMIC CHIP (E500/E600/E700)	180PF	5%	50V
C002	1-163-124-00	CERAMIC CHIP (E800)	200PF	5%	50V
C006	1-126-157-11	ELECT	10uF	20%	16V
C007	1-126-154-11	ELECT	47uF	20%	6.3V
C008	1-126-154-11	ELECT	47uF	20%	6.3V
C009	1-126-154-11	ELECT	47uF	20%	6.3V
C010	1-126-154-11	ELECT	47uF	20%	6.3V
C011	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C012	1-124-638-11	ELECT	22uF	20%	10V
C071	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C072	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C073	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C074	1-163-125-00	CERAMIC CHIP (E600B, E700B, E800BM)	220PF	5%	50V
C075	1-163-129-00	CERAMIC CHIP (E600B, E700B, E800BM)	330PF	5%	50V
C075	1-163-117-00	CERAMIC CHIP (E600B, E700B, E800BM)	100PF	5%	50V
C079	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C098	1-124-638-11	ELECT	22uF	20%	10V
C099	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C203	1-163-031-11	CERAMIC CHIP (E600B, E700B, E800BM/EE/EG)	0.01uF		50V
C204	1-126-154-11	ELECT (E600B, E700B, E800BM/EE/EG)	47uF	20%	6.3V
C205	1-126-163-11	ELECT (E600B, E700B, E800BM/EE/EG)	4.7uF	20%	50V
C206	1-163-035-00	CERAMIC CHIP (E600B, E700B, E800BM/EE/EG)	0.047uF		50V
C207	1-124-638-11	ELECT (E600B, E700B, E800BM/EE/EG)	22uF	20%	10V
C208	1-163-113-00	CERAMIC CHIP (E600B, E700B, E800BM/EE/EG)	68PF	5%	50V
C209	1-163-031-11	CERAMIC CHIP (E600B, E700B, E800BM/EE/EG)	0.01uF		50V
C251	1-124-638-11	ELECT (E600B, E700B, E800BM)	22uF	20%	10V
C260	1-163-031-11	CERAMIC CHIP (E600, E700, E800)	0.01uF		50V
C261	1-124-584-00	ELECT (E600, E700, E800)	100uF	20%	10V
C262	1-163-031-11	CERAMIC CHIP (E600, E700, E800)	0.01uF		50V
C263	1-163-038-91	CERAMIC CHIP (E600, E700, E800)	0.1uF		25V
C264	1-124-257-00	ELECT (E600, E700, E800)	2.2uF	20%	50V

Ref. No.	Part No.	Description		Remark
C265	1-163-031-11	CERAMIC CHIP 0.01uF (E600, E700. E800)		50V
C267	1-163-031-11	CERAMIC CHIP 0.01uF (E600. E700, E800)		50V
C268	1-163-263-11	CERAMIC CHIP 330PF (E600, E700, E800)	5%	50V
C269	1-163-263-11	CERAMIC CHIP 330PF (E600, E700, E800)	5%	50V
C270	1-163-038-91	CERAMIC CHIP 0.1uF (E600, E700, E800)		25V
C273	1-163-059-00	CERAMIC CHIP 0.01uF (E600, E700, E800)	10%	50V
C274	1-163-038-91	CERAMIC CHIP 0.1uF (E600, E700, E800)		25V
C275	1-126-160-11	ELECT 1uF (E600, E700, E800)	20%	50V
C276	1-163-031-11	CERAMIC CHIP 0.01uF (E600, E700, E800)		50V
C801	1-163-033-91	CERAMIC CHIP 0.022uF		50V
C802	1-163-033-91	CERAMIC CHIP 0.022uF		50V
C803	1-163-033-91	CERAMIC CHIP 0.022uF		50V
C804	1-163-077-91	CERAMIC CHIP 0.1uF		50V
C805	1-163-033-91	CERAMIC CHIP 0.022uF		50V
C806	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C807	1-163-038-91	CERAMIC CHIP 0.1uF		25V
C808	1-124-584-00	ELECT 100uF	20%	10V
C809	1-163-038-91	CERAMIC CHIP 0.1uF		25V
C810	1-124-584-00	ELECT 100uF	20%	10V
C811	1-163-031-11	CERAMIC CHIP 0.01uF		50V
C813	1-164-336-11	CERAMIC CHIP 0.33uF		25V
C814	1-163-038-91	CERAMIC CHIP 0.1uF		25V
C815	1-163-038-91	CERAMIC CHIP 0.1uF		25V
C816	1-163-038-91	CERAMIC CHIP 0.1uF		25V
C817	1-163-038-91	CERAMIC CHIP 0.1uF		25V
C818	1-163-031-11	CERAMIC CHIP 0.01uF		50V
C822	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C826	1-124-229-00	ELECT 33uF	20%	10V
C827	1-163-038-91	CERAMIC CHIP 0.1uF		25V
C829	1-163-031-11	CERAMIC CHIP 0.01uF		50V
C830	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C838	1-163-031-11	CERAMIC CHIP 0.01uF		50V
C840	1-163-031-11	CERAMIC CHIP 0.01uF		50V
C842	1-126-160-11	ELECT 1uF	20%	50V
C851	1-163-129-00	CERAMIC CHIP 330PF (E600B, E700B, E800BM)	5%	50V
C881	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C882	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C883	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C884	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C899	1-163-077-91	CERAMIC CHIP 0.1uF		50V

Ref. No.	Part No.	Description		Remark
C901	1-163-088-00	CERAMIC CHIP 5PF (E500, E600, E700)		50V
C901	1-163-091-00	CERAMIC CHIP 8PF (E800)		50V
C902	1-163-033-91	CERAMIC CHIP 0.022uF (E800)		50V
C902	1-163-109-00	CERAMIC CHIP 47PF (E500, E600, E700)	5%	50V
C903	1-163-239-11	CERAMIC CHIP 33PF (E800)	5%	50V
C904	1-163-031-11	CERAMIC CHIP 0.01uF (E800)		50V
C907	1-163-033-91	CERAMIC CHIP 0.022uF (E800)		50V
C908	1-163-031-11	CERAMIC CHIP 0.01uF (E800)		50V
C909	1-163-031-11	CERAMIC CHIP 0.01uF		50V
C910	1-163-031-11	CERAMIC CHIP 0.01uF		50V
C911	1-163-243-11	CERAMIC CHIP 47Pf (E800)	5%	50V
C912	1-163-031-11	CERAMIC CHIP 0.01uF (E800)		50V
C913	1-163-031-11	CERAMIC CHIP 0.01uF (E800)		50V
C914	1-163-117-00	CERAMIC CHIP 100PF (E800)	5%	50V
C916	1-216-295-91	CONDCTOR, CHIP (2012) (E800)		
C917	1-163-035-00	CERAMIC CHIP 0.047uF		50V
C918	1-163-105-00	CERAMIC CHIP 33PF (E500, E600, E700)	5%	50V
C918	1-163-239-11	CERAMIC CHIP 33PF (E800)	5%	50V
C920	1-163-121-00	CERAMIC CHIP 150PF (E800)	5%	50V
C921	1-126-154-11	ELECT 47uF	20%	6.3V
C951	1-163-031-11	CERAMIC CHIP 0.01uF (E800)		50V
C952	1-163-035-00	CERAMIC CHIP 0.047uF (E800)		50V
C953	1-163-243-11	CERAMIC CHIP 47PF (E800)	5%	50V
C954	1-163-263-11	CERAMIC CHIP 330PF (E800)	5%	50V
C955	1-163-243-11	CERAMIC CHIP 47PF (E800)	5%	50V
C957	1-163-115-00	CERAMIC CHIP 82PF (E500, E600, E700)	5%	50V
C958	1-163-109-00	CERAMIC CHIP 47PF (E500, E600, E700)	5%	50V
C959	1-124-638-11	ELECT 22uF (E800)	20%	10V

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CN001	1-573-828-11	CONNECTOR, BOARD TO BOARD 14P	
CN002	1-573-834-11	CONNECTOR, BOARD TO BOARD 20P	
CN801	1-563-585-11	CONNECTOR, FLEXIBLE 8P (E500)	
CN801	1-766-986-11	CONNECTOR, FFC/FPC (LIF) 13P (E600, E700, E800)	
* CN803	1-564-013-11	PIN, CONNECTOR 3P (E600, E700, E800)	
* CN802	1-564-029-00	PIN, CONNECTOR 4P	
		< FILTER >	
CF201	1-527-943-00	FILTER, CERAMIC (E600B, E700B, E800BM/EE/EG)	
		< DIODE >	
D001	8-719-911-19	DIODE 1SS119	
D801	8-719-801-78	DIODE 1SS184	
D802	8-719-801-78	DIODE 1SS184	
D803	8-719-801-78	DIODE 1SS184	
D901	8-719-800-76	DIODE 1SS226 (E800)	
D902	8-719-801-78	DIODE 1SS184 (E800)	
		< IC >	
IC001	1-467-887-21	IC YC MODULE 2 (PAL) JFA1118	
IC201	8-759-199-28	IC BA7025F-E2 (E600B, E700B, E800BM/EE/EG)	
IC251	1-809-959-11	IC TME656 (E600B, E700B, E800BM)	
IC260	8-759-055-49	IC AN3327K (E600, E700, E800)	
IC801	8-759-267-78	IC HA118191ANT	
		< JUMPER RESISTOR >	
JR001	1-216-295-91	CONDCTOR, CHIP (2012)	
JR003	1-216-295-91	CONDCTOR, CHIP (2012)	
JR021	1-216-296-00	METAL CHIP 0 5%	1/8W
JR022	1-216-296-00	METAL CHIP 0 5%	1/8W
JR023	1-216-296-00	METAL CHIP 0 5%	1/8W
JR025	1-216-296-00	METAL CHIP 0 5%	1/8W
JR026	1-216-295-91	CONDCTOR, CHIP (2012)	
JR027	1-216-296-00	METAL CHIP 0 5%	1/8W
JR028	1-216-296-00	METAL CHIP 0 5%	1/8W
JR030	1-216-295-91	CONDCTOR, CHIP (2012)	
JR031	1-216-296-00	METAL CHIP 0 5%	1/8W
JR032	1-216-295-91	CONDCTOR, CHIP(2012)	
JR033	1-216-296-00	METAL CHIP 0 5%	1/8W
JR034	1-216-296-00	METAL CHIP 0 5%	1/8W
JR035	1-216-296-00	METAL CHIP 0 5%	1/8W
JR036	1-216-296-00	METAL CHIP 0 5%	1/8W
JR037	1-216-296-00	METAL CHIP 0 5%	1/8W
JR038	1-216-296-00	METAL CHIP 0 5%	1/8W
JR039	1-216-296-00	METAL CHIP 0 5%	1/8W
JR040	1-216-296-00	METAL CHIP 0 5%	1/8W
JR041	1-216-296-00	METAL CHIP 0 5%	1/8W
JR042	1-216-296-00	METAL CHIP 0 5%	1/8W
JR043	1-216-296-00	METAL CHIP 0 5%	1/8W
JR044	1-216-296-00	METAL CHIP 0 5%	1/8W
JR045	1-216-296-00	METAL CHIP 0 5%	1/8W
JR046	1-216-296-00	METAL CHIP 0 5%	1/8W
JR047	1-216-295-91	CONDCTOR, CHIP (2012)	
JR048	1-216-296-00	METAL CHIP 0 5%	1/8W
JR049	1-216-295-91	CONDCTOR, CHIP (2012)	
JR050	1-216-295-91	CONDCTOR, CHIP (2012)	
JR051	1-216-295-91	CONDCTOR, CHIP (2012)	
JR902	1-216-295-91	CONDCTOR, CHIP (2012) (EXCEPT E800)	
JR909	1-216-295-91	CONDCTOR, CHIP (2012)	
		< COIL >	
L001	1-408-976-21	INDUCTOR 33uH	
L004	1-408-976-21	INDUCTOR 33uH	
L005	1-410-521-11	INDUCTOR 100uH	
L006	1-410-514-11	INDUCTOR 27uH	
L016	1-410-513-11	INDUCTOR 22uH	
L017	1-410-524-41	INDUCTOR 180uH	
L018	1-410-521-11	INDUCTOR 100uH	
L202	1-410-521-11	INDUCTOR 100uH (E600B, E700B, E800BM/EE/EG)	
L251	1-410-521-11	INDUCTOR 100uH (E600B, E700B, E800BM)	
L260	1-408-982-21	INDUCTOR 100uH (E600, E700, E800)	
L801	1-408-948-00	INDUCTOR 220uH	
L802	1-408-948-00	INDUCTOR 220uH	
L803	1-408-982-21	INDUCTOR 100uH	
L804	1-408-982-21	INDUCTOR 100uH	
L810	1-408-985-21	INDUCTOR 180uH	
L812	1-408-982-21	INDUCTOR 100uH	
L851	1-408-980-21	INDUCTOR 68uH (E600B, E700B, E800BM)	
L901	1-408-976-21	INDUCTOR 33uH (E500, E600, E700)	
L901	1-408-974-21	INDUCTOR 22uH (E800)	
L902	1-408-972-21	INDUCTOR 15uH (E500, E600, E700)	
L902	1-408-948-00	INDUCTOR 220uH (E800)	
L908	1-410-521-11	INDUCTOR 100uH	
L909	1-408-977-21	INDUCTOR 39uH (E500, E600, E700)	
L909	1-408-978-21	INDUCTOR 47uH (E800)	
L951	1-408-972-21	INDUCTOR 15uH (E500, E600, E700)	
L952	1-408-982-21	INDUCTOR 100uH (E800)	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q002	8-729-421-19	TRANSISTOR UN2213	
Q005	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q006	8-729-421-19	TRANSISTOR UN2213	
Q007	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q008	8-729-424-67	TRANSISTOR UN2216	
Q009	8-729-424-67	TRANSISTOR UN2216	
Q018	8-729-901-06	TRANSISTOR DTA144EK (E800EE/EG)	
Q027	8-729-421-19	TRANSISTOR UN2213 (E600B, E700B, E800BM/EE/EG)	
Q033	8-729-421-19	TRANSISTOR UN2213 (E600B, E700B, E800BM)	
Q034	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q035	8-729-421-19	TRANSISTOR UN2213 (E600B, E700B, E800BM)	
Q201	8-729-010-29	TRANSISTOR MSD601-RST1 (E600B, E700B, E800BM/EE/EG)	
Q810	8-729-421-19	TRANSISTOR UN2213	
Q811	8-729-921-12	TRANSISTOR 2SD1834	
Q817	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q818	8-729-421-19	TRANSISTOR UN2213	
Q819	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q840	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q841	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q851	8-729-421-19	TRANSISTOR UN2213 (E600B, E700B, E800BM)	
Q904	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q906	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q907	8-729-230-49	TRANSISTOR 2SC2712-YG (E800)	
Q908	8-729-230-49	TRANSISTOR 2SC2712-YG (E800)	
Q909	8-729-230-49	TRANSISTOR 2SC2712-YG (E800)	
Q911	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q912	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q928	8-729-421-22	TRANSISTOR UN2211 (E500, E600, E700)	
Q951	8-729-801-46	TRANSISTOR 2SC3064-F (E800)	
Q952	8-729-806-64	TRANSISTOR 2SA1237F-6B (E800)	
Q953	8-729-801-46	TRANSISTOR 2SC3064-F (E800)	
Q955	8-729-216-21	TRANSISTOR 2SA1162-Y (E800)	
Q956	8-729-900-51	TRANSISTOR DTA114TK (E800)	
		< RESISTOR >	
R002	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R003	1-216-054-00	METAL GLAZE 1.6K 5% 1/10W (E500, E600, E700)	
R004	1-216-667-11	METAL CHIP 4.7K 0.5% 1/10W	
R005	1-216-295-91	CONDCTOR, CHIP (2012)	
R009	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R010	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R012	1-216-099-00	METAL CHIP 120K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R014	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R070	1-216-049-00	METAL CHIP 1K 5% 1/10W (E600B, E700B, E800BM/EE/EG)	
R081	1-249-429-11	CARBON 10K 5% 1/4W (E600B, E700B, E800BM)	
R082	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R083	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R084	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R085	1-216-045-00	METAL CHIP 680 5% 1/10W	
R086	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R087	1-216-295-91	CONDCTOR, CHIP (2012)	
R088	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R204	1-216-198-91	METAL GLAZE 1K 5% 1/8W (E600B, E700B, E800BM/EE/EG)	
R205	1-216-073-00	METAL CHIP 10K 5% 1/10W (E600B, E700B, E800BM/EE/EG)	
R206	1-216-065-00	METAL CHIP 4.7K 5% 1/10W (E600B, E700B, E800BM/EE/EG)	
R207	1-216-109-00	METAL CHIP 330K 5% 1/10W (E600B, E700B, E800BM/EE/EG)	
R208	1-249-421-11	CARBON 2.2K 5% 1/4W F (E600B, E700B, E800BM/EE/EG)	
R262	1-216-035-00	METAL CHIP 270 5% 1/10W (E600, E700, E800)	
R263	1-216-067-00	METAL CHIP 5.6K 5% 1/10W (E600, E700, E800)	
R265	1-216-033-00	METAL CHIP 220 5% 1/10W (E600, E700, E800)	
R266	1-216-051-00	METAL CHIP 1.2K 5% 1/10W (E600, E700, E800)	
R267	1-216-035-00	METAL CHIP 270 5% 1/10W (E600, E700, E800)	
R268	1-216-097-00	METAL CHIP 100K 5% 1/10W (E600, E700, E800)	
R269	1-216-081-00	METAL CHIP 22K 5% 1/10W (E600B, E700B, E800BM/EE/EG)	
R270	1-216-071-00	METAL CHIP 6.8K 5% 1/10W (E600B, E700B, E800BM/EE/EG)	
R271	1-216-079-00	METAL CHIP 18K 5% 1/10W (E600, E700, E800)	
R276	1-216-073-00	METAL CHIP 10K 5% 1/10W (E600, E700, E800)	
R801	1-216-023-00	METAL CHIP 82 5% 1/10W	
R802	1-216-037-00	METAL CHIP 330 5% 1/10W	
R803	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R805	1-216-610-11	METAL CHIP 20 0.50% 1/10W	
R806	1-216-023-00	METAL CHIP 82 5% 1/10W	
R807	1-216-023-00	METAL CHIP 82 5% 1/10W	
R811	1-216-037-00	METAL CHIP 330 5% 1/10W	
R812	1-216-023-00	METAL CHIP 82 5% 1/10W	
R815	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R816	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R817	1-216-049-00	METAL CHIP	1K	5%	1/10W
R835	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R836	1-216-047-00	METAL CHIP	820	5%	1/10W
R838	1-216-075-00	METAL CHIP	12K	5%	1/10W
R842	1-216-622-11	METAL CHIP	62	0.50%	1/10W
R843	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R844	1-249-423-11	CARBON	3.3K	5%	1/4W F
R846	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R847	1-216-078-00	METAL GLAZE	16K	5%	1/10W
R856	1-216-033-00	METAL CHIP	220	5%	1/10W
R857	1-216-033-00	METAL CHIP	220	5%	1/10W
R858	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R861	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
R862	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R863	1-216-047-00	METAL CHIP	820	5%	1/10W
R901	1-216-049-00	METAL CHIP (E500, E600, E700)	1K	5%	1/10W
R901	1-216-039-00	METAL CHIP (E800)	390	5%	1/10W
R902	1-216-033-00	METAL CHIP (E800)	220	5%	1/10W
R902	1-216-295-91	CONDCTOR, CHIP (2012)	(E500, E600, E700)		
R903	1-216-065-00	METAL CHIP (E800)	4.7K	5%	1/10W
R904	1-216-295-91	CONDCTOR, CHIP (2012)	(E800)		
R906	1-216-077-00	METAL CHIP	15K	5%	1/10W
R907	1-216-075-00	METAL CHIP	12K	5%	1/10W
R908	1-216-043-91	METAL GLAZE (E500, E600, E700)	560	5%	1/10W
R908	1-216-033-00	METAL CHIP (E800)	220	5%	1/10W
R910	1-216-025-00	METAL CHIP (E800)	100	5%	1/10W
R913	1-216-057-00	METAL CHIP (E800)	2.2K	5%	1/10W
R914	1-216-077-00	METAL CHIP	15K	5%	1/10W
R915	1-216-075-00	METAL CHIP	12K	5%	1/10W
R916	1-216-039-00	METAL CHIP (E800)	390	5%	1/10W
R916	1-216-295-91	CONDCTOR, CHIP (2012)	(E500, E600, E700)		
R917	1-216-045-00	METAL CHIP	680	5%	1/10W
R918	1-216-043-91	METAL GLAZE (E800)	560	5%	1/10W
R919	1-216-039-00	METAL CHIP (E800)	390	5%	1/10W
R920	1-216-043-91	METAL GLAZE (E800)	560	5%	1/10W
R921	1-216-049-00	METAL CHIP (E800)	1K	5%	1/10W
R922	1-216-041-00	METAL CHIP (E800)	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R924	1-216-027-00	METAL CHIP (E800)	120	5%	1/10W
R925	1-216-045-00	METAL CHIP (E800)	680	5%	1/10W
R926	1-216-025-00	METAL CHIP (E800)	100	5%	1/10W
R927	1-216-067-00	METAL CHIP (E800)	5.6K	5%	1/10W
R928	1-216-071-00	METAL CHIP (E800)	8.2K	5%	1/10W
R929	1-216-043-91	METAL GLAZE (E800)	560	5%	1/10W
R936	1-216-039-00	METAL CHIP	390	5%	1/10W
R937	1-216-039-00	METAL CHIP	390	5%	1/10W
R938	1-216-047-00	METAL CHIP (E500, E600, E700)	820	5%	1/10W
R938	1-216-049-00	METAL CHIP (E800)	1K	5%	1/10W
R939	1-216-049-00	METAL CHIP	1K	5%	1/10W
R951	1-216-689-11	METAL CHIP (E800)	39K	0.5%	1/10W
R952	1-216-671-11	METAL CHIP (E800)	6.8K	0.5%	1/10W
R953	1-216-661-11	METAL CHIP (E800)	2.7K	0.5%	1/10W
R954	1-216-671-11	METAL CHIP (E800)	6.8K	0.5%	1/10W
R955	1-216-639-11	METAL CHIP (E800)	330	0.5%	1/10W
R956	1-216-627-11	METAL CHIP (E800)	100	0.5%	1/10W
R957	1-216-661-11	METAL CHIP (E800)	2.7K	0.5%	1/10W
R958	1-216-051-00	METAL CHIP (E800)	1.2K	5%	1/10W
R959	1-216-671-11	METAL CHIP (E800)	6.8K	0.5%	1/10W
R960	1-216-057-00	METAL CHIP (E800)	2.2K	5%	1/10W
R961	1-216-065-00	METAL CHIP (E800)	4.7K	5%	1/10W
R962	1-216-679-11	METAL CHIP (E800)	15K	0.5%	1/10W
R963	1-216-682-11	METAL CHIP (E800)	20K	0.5%	1/10W
R964	1-216-057-00	METAL CHIP (E800)	2.2K	5%	1/10W
R965	1-216-107-00	METAL CHIP (E800)	270K	5%	1/10W
R966	1-216-295-91	CONDCTOR, CHIP (2012)	(E800)		
R967	1-216-057-00	METAL CHIP (E800)	2.2K	5%	1/10W

Ref. No.	Part No.	Description	Remark
R968	1-216-025-00	METAL CHIP 100 5% 1/10W (E500, E600, E700)	
R969	1-216-057-00	METAL CHIP 2.2K 5% 1/10W (E500, E600. E700)	
R970	1-216-041-00	METAL CHIP 470 5% 1/10W (E500, E600, E700)	
R971	1-216-036-00	METAL CHIP 300 5% 1/10W (E500, E600, E700)	
R971	1-216-295-91	CONDCTOR, CHIP (2012) (E800)	
R972	1-216-295-91	CONDCTOR, CHIP (2012) (E800)	
R973	1-208-814-11	METAL CHIP 22K 0.50% 1/10W (E800)	
		< VARIABLE RESISTOR >	
RV201	1-223-235-11	RES, ADJ, CARBON 470 (SECAM DET) (E600B, E700B, E800BM/EE/EG)	
		< TRANSFORMER >	
T201	1-409-467-11	COIL (TRAP 7.8K) (E600B, E700B, E800BM/EE/EG)	
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		MISCELLANEOUS	
		**********	
51	1-467-945-11	SWITCH BLOCK, CONTROL (E800VC)	
51	1-467-945-21	SWITCH BLOCK, CONTROL (E800BM)	
51	1-467-945-31	SWITCH BLOCK, CONTROL (E800NP)	
51	1-467-945-41	SWITCH BLOCK, CONTROL (E800NC)	
51	1-467-945-51	SWITCH BLOCK, CONTROL (E800AP)	
51	1-467-945-71	SWITCH BLOCK, CONTROL (E800EE/EG)	
51	1-467-945-81	SWITCH BLOCK, CONTROL (E800IT)	
51	1-467-945-91	SWITCH BLOCK, CONTROL (E700EX/UX)	
51	1-467-946-11	SWITCH BLOCK, CONTROL (E500UX)	
51	1-467-946-21	SWITCH BLOCK, CONTROL (E500VP)	
51	1-467-946-31	SWITCH BLOCK, CONTROL (E500AP)	
51	1-467-946-41	SWITCH BLOCK, CONTROL (E700B)	
51	1-467-946-51	SWITCH BLOCK, CONTROL (E500CP)	
51	1-467-946-61	SWITCH BLOCK, CONTROL (E500IT)	
51	1-467-946-71	SWITCH BLOCK, CONTROL (E700:NC1/NC2)	
51	1-467-946-81	SWITCH BLOCK, CONTROL (E700IT/VP)	
51	1-473-003-11	SWITCH BLOCK, CONTROL (E700AP)	
* 104	1-769-397-11	WIRE, FLAT TYPE 19P	
110	1-769-355-11	CABLE, FLEXIBLE FLAT (FCP-6) (E500CP, E600B, E700B/EX/UX, E800BM/NP/VC)	
118	1-555-110-00	CABLE, PIN (EXCEPT E500)	
158	1-500-144-11	HEAD, FE	
165	1-506-485-11	PIN, CONNECTOR 6P	
M901	8-848-618-12	DRUM ASSY (DZH-54A-R) (E500)	
M901	8-848-619-12	DRUM ASSY (DZH-66A-R) (EXCEPT E500)	
260	1-762-076-11	SWITCH, ROTARY	
M902	1-698-409-11	MOTOR, DC (CAPSTAN)	
M903	X-3943-883-1	MOTOR ASSY, CAM	
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ACCESSORIES & PACKING MATERIALS

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	1-467-950-11	REMOTE COMMANDER (RMT-V159D) (E600B, E700B)
	1-467-950-21	REMOTE COMMANDER (RMT-V159B) (E600VP, E700:NC1/NC2, E700AP/VP)
	1-467-950-31	REMOTE COMMANDER (RMT-V159A) (E800BM)
	1-467-950-41	REMOTE COMMANDER (RMT-V159) (E800AP/EE/EG/NC/NP/VC)
	1-467-950-51	REMOTE COMMANDER (RMT-V159E) (E500AP/CP/VP)
	1-467-954-11	REMOTE COMMANDER (RMT-V159J) (E700IT)
	1-467-954-21	REMOTE COMMANDER (RMT-V159H) (E800IT)
	1-467-954-31	REMOTE COMMANDER (RMT-V159K) (E500IT)
	1-467-965-11	REMOTE COMMANDER (RMT-V163) (E700EX/UX)
	1-467-965-21	REMOTE COMMANDER (RMT-V163A) (E500UX)
⚠	1-574-056-11	CORD, POWER (E500AP/CP/IT/VP, E600, E700:NC1/NC2, E700AP/B/IT/VP, E800VC) (250V/2.5A)
⚠	1-575-131-11	CORD, POWER (E800AP/BM/EE/EG/IT/NC/NP) (250V/2.5A)
⚠	1-590-865-22	CORD, POWER (E500UX, E700EX/UX) (250V/5A)
	1-696-593-11	CORD, CONNECTION (AERIAL CABLE, 1.5m) (PAL) (EXCEPT 700EX)
	1-696-861-11	CORD, CONNECTION (AUDIO CABLE, 1.5m) (EXCEPT E500, E700EX)
	1-770-321-11	ADAPTOR, CONVERSION 6P (E800EE/EG)
	3-759-299-21	MANUAL, INSTRUCTION (E800EE/EG) (ENGLISH, CZECH, POLISH, RUSSIAN)
	3-759-299-41	MANUAL, INSTRUCTION (E800AP/NC) (DUTCH)
	3-759-299-51	MANUAL, INSTRUCTION (E800BM) (FRENCH)
	3-759-299-61	MANUAL, INSTRUCTION (E800NP) (SPANISH, PORTUGUESE)
	3-759-299-71	MANUAL, INSTRUCTION (E800NC/VC) (FRENCH, GERMAN)
	3-759-299-81	MANUAL, INSTRUCTION (E800NC) (SWEDISH, DANISH, FINNISH)
	3-759-299-91	MANUAL, INSTRUCTION (E800IT/VC) (ITALIAN)
	3-759-856-11	MANUAL, INSTRUCTION (E700EX/UX) (ENGLISH)
	3-759-856-41	MANUAL, INSTRUCTION (E700:NC1, E700AP) (DUTCH)
	3-759-856-51	MANUAL, INSTRUCTION (E600B, E700B) (FRENCH)
	3-759-856-61	MANUAL, INSTRUCTION (E700:NC2) (SPANISH, PORTUGUESE)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
	3-759-856-71	MANUAL, INSTRUCTION (E600VP, E700:NC1, E700VP) (FRENCH, GERMAN)	
	3-759-856-81	MANUAL, INSTRUCTION (E700:NC1) (SWEDISH, DANISH, FINNISH)	
	3-759-856-91	MANUAL, INSTRUCTION (E600VP, E700IT/VP) (ITALIAN)	
	3-759-957-11	MANUAL, INSTRUCTION (E500UX) (ENGLISH)	
	3-759-957-41	MANUAL, INSTRUCTION (E500AP) (DUTCH)	
	3-759-957-61	MANUAL, INSTRUCTION (E500CP) (SPANISH, PORTUGUESE)	
	3-759-957-71	MANUAL, INSTRUCTION (E500AP/VP) (FRENCH, GERMAN)	
	3-759-957-81	MANUAL, INSTRUCTION (E500AP) (SWEDISH, DANISH, FINNISH)	
	3-759-957-91	MANUAL, INSTRUCTION (E500IT/VP) (ITALIAN)	
*	3-960-470-01	INDIVIDUAL CARTON (E800AP/IT/NC/NP/VC)	
*	3-960-470-11	INDIVIDUAL CARTON (E800BM)	
*	3-960-470-31	INDIVIDUAL CARTON (E800EE)	
*	3-960-470-41	INDIVIDUAL CARTON (E800EG)	
*	3-960-471-01	CUSHION (UPPER) (EXCEPT E600)	
*	3-960-472-01	CUSHION (LOWER) (EXCEPT E600)	
*	3-961-747-01	INDIVIDUAL CARTON (E700:NC1/NC2, E700AP/IT/VP)	
*	3-961-747-11	INDIVIDUAL CARTON (E700B)	
*	3-961-747-21	INDIVIDUAL CARTON (E700EX/UX)	
*	3-961-889-01	CUSHION (UPPER) (E600)	
*	3-961-890-01	CUSHION (LOWER) (E600)	
*	3-961-891-01	INDIVIDUAL CARTON (E600VP)	
*	3-961-891-11	INDIVIDUAL CARTON (E600B)	
*	3-961-999-01	INDIVIDUAL CARTON (E500AP/CP/IT/VP)	
*	3-961-999-11	INDIVIDUAL CARTON (E500UX)	

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HARDWARE LIST

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#1	7-685-648-79	SCREW +BVTP 3X12 TYPE2
#2	7-685-646-81	SCREW +BVTP 3X8 TYPE2
#3	7-621-255-15	SCREW +B 2X3
#4	7-682-547-04	SCREW +P 3X6
#5	7-685-649-79	SCREW +BVTP 3X14 TYPE2
#6	7-685-646-79	SCREW (3X8)
#7	7-624-106-04	STOP RING 3.0, TYPE -E
#8	7-682-645-01	SCREW +PS 3X4

Note.
NC1 : Belgium, North European
NC2 : Spanish, Portugal

6-1. SYSTEM CONTROL—VIDEO BLOCK INTERFACE (MA215 BOARD IC201)

Signal	Pin No.	I/O	STOP	FF	REW	TAPE THREADING	TAPE UNTHREAD-ING	PB	PB • PAUSE	SLOW	×2	PICTURE SEARCH		REC	REC • PAUSE
												CUE	REVIEW		
V • PB	IC201㉟	O	H	H	H	H	H	L	L	L	L	L	L	H	H
RF SW P (SW25)	IC201①	O	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1
Q VD/V MUTE	IC201②	O	L	L	L	L	L	* 2	* 3	* 3	* 3	* 3	* 3	L	L
NA•SP	IC201㊶	O	* 4	* 4	* 4	* 4	* 4	* 5	* 5	* 5	* 5	* 5	* 5	* 4	* 4
LP	IC201㊷	O	* 8	* 8	* 8	* 8	* 8	* 5	* 5	* 5	* 5	* 5	* 5	* 8	* 8
REC • P	IC201⑤	O	L	L	L	L	L	L	L	L	L	L	L	L	H
REC	IC201㊱	O	L	L	L	L	L	L	L	L	L	L	L	H	H
V SYNC	IC201㊻	I	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6	* 6
OSD MUTE	IC201㊶	O	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7
CTL REC	IC201㊹	O	L	L	L	L	L	L	L	L	L	L	L	H	L
NTSC	IC201㉗	O	L	L	L	L	L	L	L	L	L	L	L	L	L
JOG	IC201㊼	O	L	L	L	L	L	L	H	H	H	H	H	L	L
CRC SETTEI	IC201㊻	O	L	L	L	L	L	L	L	L	L	L	L	* 9	* 9

* 1. 25Hz 50% duty pulse synchronizing with drum rotation.
* 2. Normally "L" . "H" when the video signal is not detected.
* 3. V period "H" pulse.
* 4. "L" in the SP mode. Selected according to the recording mode.
* 5. Selected according to the tape recording mode.
* 6. Composite sync signal (positive).
* 7. "H" when menu screen or gray back screen.
* 8. Selected by REC mode, "L" in the SP mode.
* 9. "H" while APC is set.

Mode / Signal	SP	LP	EP
SP㊶	L	H	H
LP㊷	L	L	H

6-2. SYSTEM CONTROL—SERVO PERIPHERAL CIRCUIT INTERFACE (MA-215 BOARD IC201)

Signal	Pin No.	I/O	STOP	FF	REW	TAPE THREAD-ING	TAPE UNTH-READING	PB	PB • PAUSE	SLOW	×2	PICTURE SEARCH		REC	REC • PAUSE	PB INDEX WRT/ERS
												CUE	REVIEW			
REC CTL	IC201⑦	O	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	
$\overline{\text{CAP STOP}}$	IC201⑧	O (O.D)	L	HI-Z (O.D)	HI-Z (O.D)	HI-Z (O.D)	HI-Z (O.D)	HI-Z (O.D)	L	* 3	HI-Z (O.D)	HI-Z (O.D)	HI-Z (O.D)	HI-Z (O.D)	HI-Z (O.D)	
STEP PLS	IC201⑫	O	L	L	L	L	L	L	L	* 2	L	L	L	L	L	
CTL REC	IC201⑭	O	L	L	L	L	L	L	L	L	L	L	L	H	L	H
CTL INDEX	IC201⑮	O	L	L	L	L	L	L	L	L	L	L	L	L	L	H
PB CTL	IC201⑰	I	H	* 6	* 6			* 1	H/L	* 2	* 6	* 6	* 6	* 1	H	
DRUM PG	IC201⑱	I	* 4	* 7	* 7	* 5	* 5	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	
DRUM FG	IC201⑲	I	* 4	* 8	* 8	* 5	* 5	* 8	* 8	* 8	* 8	* 8	* 8	* 8	* 8	
CAP FG	IC201⑳	I	H/L	* 6	* 6	* 5	* 5	* 6	H/L	* 9	* 6	* 6	* 6	* 6	H/L	
CAP DA	IC201㉒	O	* 10	* 10	* 10	* 10	* 10	* 11	* 10	* 10	* 11	* 11	* 11	* 11	* 10	
DRUM DA	IC201㉔	O	* 12	* 12	* 12	* 12	* 12	* 12	* 12	* 12	* 12	* 12	* 12	* 12	* 12	
CTL STEP	IC201㉓	O	L	L	L	L	L	L	L	* 13	L	L	L	L	L	

* 1. 25Hz pulse.
* 2. Pulse in tape running.
* 3. Reverse logic pulse of STEP PLS.
* 4. "L" when drum rotation stops
* 5. Unstable period pulse.
* 6. Pulse of period proportionate to tape speed.
* 7. 25Hz pulse.
* 8. 300Hz pulse.
* 9. Pulse in tape running.
* 10. Approx. 2 msec. period "H" or "L" pulse.
* 11. Approx. 1.5 msec. period "H" or "L" pulse.
* 12. Approx. 3 msec. period "H" or "L" pulse.
* 13. "H" in FWD direction and STEP drive.

6-3. SYSTEM CONTROL—MECHANISM BLOCK INTERFACE (MA-215 BOARD IC201)

Signal	Pin No.	I/O	EJECTED	CASSETTE LOADING	CASSETTE UNLOAD-ING	TAPE THREAD-ING	TAPE UNTH-READING	STOP	FF	REW	PB	PB・PAUSE	SLOW	×2	PICTURE SEARCH		REC	REC・PAUSE
															CUE	REVIEW		
CAM LOAD	IC201⑬	O	L	H	L	H	L	L	L	L	L	L	L	L	L	L	L	L
CAM UNLOAD	IC201⑭	O	L	L	H	L	H	L	L	L	L	L	L	L	L	L	L	L
CAM 12V	IC201㉛	O		H	L	H	L											
MODE 1	IC201㊽	I	H	L	L	* 1	* 1	H	H	H	H	H	H	H	H	L	H	H
MODE 2	IC201㊼	I	L	L	L	* 1	* 1	L	L	L	H	H	H	H	H	H	H	H
MODE 3	IC201㊻	I	L	L	L	* 1	* 1	H	H	H	L	H	H	L	L	H	L	H
MODE 4	IC201㊺	I	L	H	H	* 1	* 1	H	L	L	L	L	L	L	L	L	L	L
REC PRF	IC201⑮	I	L	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2
T REEL FG	IC201㊹	I	H/L	H/L	H/L	H/L	H/L	H/L	* 3	* 3	* 3	H/L	* 3	* 3	* 3	* 3	* 3	H/L
S REEL FG	IC201㊸	I	H/L	H/L	H/L	* 3	* 3	H/L	* 3	* 3	* 3	H/L	* 3	* 3	* 3	* 3	* 3	H/L
END LED	IC201㊷	O (O.D)	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4	* 4
CAP TRQ 1	IC201㉞	O (O.D)											* 1					
CAP TRQ 2	IC201㉝	O (O.D)										L	* 1					L
CAP TRQ 3	IC201⑧	O (O.D)							H	H			* 1		H	H		
$\overline{\text{CAP STOP}}$	IC201㊳	O (O.D)	L	L	L	H	H	L	H	H	H	L	* 5	H	H	H	H	L
CAP RVS	IC201⑫	O	H			L	H	H/L	L	H	L	L	L/* 5	L	L	H	L	L
CAP DA	IC201㉓	O																
T SENS	IC201⑰	I	* 4	* 4	* 4	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7
S SENS	IC201⑱	I	* 4	* 4	* 4	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7	* 7

* 1. Uncertainty
* 2. "L" when the erasing protection tab is bent, "H" when not bent.
* 3. Pulse of period proportionate to reel rotating speed.
* 4. Approx. 2 msec. period "H" pulse.
* 5. Pulse in tape running.
* 6. "L" only in tape running and when CAP RVS is "H".
* 7. Nomally "L". 2 msec. period "H" pulse when tape top or tape end is detected.

6-4. SYSTEM CONTROL —SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE (MA-215 BOARD IC201)

Signal	Pin No.	I/O	I/O Level
$\overline{\text{ASURA RESET}}$	IC201㊵	I	Normally "H". "L" when service interruption is detected or restored.
$\overline{\text{ASURA CS}}$	IC201㊹	I	Chip select signal from the timer microprocessor. V period "L" pulse.
SI BUS	IC201㊺	I	Serial communication data from the timer microprocessor. V period "L" pulse.
SO BUS	IC201㊻	O	Serial communication data to the timer microprocessor. V period "L" pulse.
S CLK	IC201㊼	I	Serial communication clock with the timer microprocessor. V period "L" pulse.

6-5. SYSTEM CONTROL —AUDIO BLOCK INTERFACE (MA-215 BOARD IC201)

Signal	Pin No.	I/O	STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	PB • PAUSE	SLOW	×2	PICTURE SEARCH CUE	PICTURE SEARCH REVIEW	REC	REC • PAUSE
AF ENVELOP	IC201㊶	I	AF RF envelope signal input pin for auto tracking.												
NA PB	IC201㊸	O	L	L	L	L	L	H	H	H	H	H	H	L	L
A MUTE	IC201㊲	O (O.D)	L	L	L	L	L	* 1	H	H	H	H	H	L	L
$\overline{\text{NA SP}}$	IC201㊵	O	* 2	* 2	* 2	* 2	* 2	* 3	* 3	* 3	* 3	* 3	* 2	* 2	* 2
NA REC•$\overline{\text{P}}$	IC201㊶	O	L	L	L	L	L	L	L	L	L	L	L	H	L
AF REC•$\overline{\text{P}}$	IC201④	O	L	L	L	L	L	L	L	L	L	L	L	H	L
AF SWP	IC201㊵	O	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1	* 1
AF SW POSITION	IC201㊵	I	Input pin for AF switching position adjustment.												
$\overline{\text{FULL ERS}}$	IC201㊱	O (O.D)	H	H	H	H	H	H	H	H	H	H	H	L	H

* 1. 25Hz 50% duty pulse approximately 5 msec. delayed from RF SW P.
* 2. Selected according to SP/LP selector. "L" in the SP mode, "H" in the LP mode.
* 3. Selected according to the tape recording mode. "L" in the SP mode, "H" in the LP mode.

6-6. SYSTEM CONTROL—RF MODULATOR, INPUT SELECTION BLOCK INTERFACE (MA-215 BOARD IC201)

Signal	Pin No.	I/O	I/O Level
TV/VTR	IC503㉓	O	"L" when RF modulator through.

Signal	Pin No.	I/O	I/O Level		
			TUNER	LINE 1	LINE 2
LINE 1	IC201㊴	O	L	H	L
LINE 2	IC201㊷	O	L	L	H

6-7. SERVO/SYSTEM CONTROL MICROPROCESSOR CXP87240-050Q (MA-215 BOARD IC201) PORT FUNCTION DESCRIPTION

Pin No.	Signal	I/O	Function
1	$\overline{\text{RF}}$ SWP	O	RF switching pulse.
2	QVD	O	False VD.
3	$\overline{\text{QHD}}$ ENBL	O	False HD voltage level control.
4	$\overline{\text{AF REC P}}$	O	Hi-Fi recording control.
5	REC P	O	Recording signal.
6	$\overline{\text{FE}}$ ON	O	Flying erase.
7	$\overline{\text{REC}}$ CTL	I/O	REC CTL.
8	CAP TRQ3	O	Capstan current control.
9	RENTAL	I/O	YNR control.
10	EDIT	O	EDIT control.
11	$\overline{\text{NA REC P}}$	I/O	Normal audio recording mode. H : recording mode.
12	LP	O	H in LP mode.
13	CAMLOAD	I/O	Loading motor rotaing direction control.
14	CAMUNLOAD	I/O	
15	C IN/$\overline{\text{REC PRF}}$	O	Cassette IN and erasing protection tab detection switch input.
16	HEAD CONT	I/O	Head change control.
17	T SENS	I	Tape top sensor input.
18	S SENS	I	Tape end sensor input.
19	MOD CONT	O	Modulator power supply ON/OFF control.
20	AV CONT	O	ON/OFF control.
21	ME SECAM	I	H : ME SECAM
22	SECAM	I	H : SECAM
23	VPB	O	Reverse VPB, H : P-OFF.
24	STEP PLS	O	Step pulse, H : Capstan step driving.
25	PAL 60	O	H : HTSC on PAL TV.
26	3.58 NTSC	O	Tuner audio selection signal. H : 3.58 XTAL.
27	$\overline{\text{NTSC}}$	O	H : PAL.
28	E TAPE	O	H : HG tape. (Not used. (open))
29	BIL	O	H output : BS bilingual mode. (Not used. (open))
30	C+CONT	O	CANAL+control.
31	CAM 12V	O	CAM motor voltage change.
32	END LED	O	Top/end detection lamp lighting control.
33	CAP TRQ 2	O	Capstan current control signal 2. L : FF/REW to STOP.
34	CAP TRQ 1	O	Capstan current control signal 1. L : SLOW speed down.
35	PAL	O	H : PAL (Not used. (open))
36	$\overline{\text{FULL ERS}}$	O	Full erase control. (Not used. (open))
37	A MUTE	O	Audio mute. H : mute.
38	CAP $\overline{\text{STOP}}$	O	Capstan stop reversal. L : Capstan stop.
39	MP	I	Fixed to L.

Pin No.	Signal	I/O	Function
40	$\overline{\text{ASURA RESET}}$	I	System reset input.
41	VSS		GND.
42	XTAL		System clock 16MHz.
43	EXTAL		
44	$\overline{\text{ASURA CS}}$	I	Chip select signal. (HI-6 board IC302)
45	SI BUS	I	Serial communication signal.
46	SO BUS	O	
47	S CLK	I	
48	DEST 2	I	Destination judge input. (Not used. (open))
49	AD	I	AD input for APC 2.
50	AC ON LINE	O	AC ON LINE output.
51	AFSW POS	I	Hi-Fi switching position adjustment.
52	A VSS		GND.
53	A VREF		AD port reference input. (UNSW 5V)
54	A VDD		UNSW 5V.
55	MODE 4	I	Cam encoder data 4.
56	MODE 3	I	Cam encoder data 3.
57	MODE 2	I	Cam encoder data 2.
58	MODE 1	I	Cam encoder data 1.
59	DEW	I	Condensation sensor input. "H" when condensation.
60	RF ENV	I	Video playback signal envelope.
61	AF ENV	I	Hi-Fi audio playback signal envelope.
62	RF SW POS	I	Video head switching position adjustment.
63	S REEL FG	I	S side reel FG input.
64	T REEL FG	I	T side reel FG input.
65	NT JUDGE	I	4.43/3.58 judge input. (Not used. (open))
66	V SYNC	I	Composite sync input.
67	PB CTL	I	Servo CTL input.
68	DRM PG	I	Drum PG input.
69	$\overline{\text{DRM}}$ FG	I	Drum FG input.
70	CAP FG	I	Capstan FG input.
71	OSD MUTE	O	Video output mute signal. H : Gray back. (Not used. (open))
72	CAP RVS	O	Capstan reverse control. H : Reverse
73	$\overline{\text{CAP}}$ DA	O	Capstan D/A output.
74	$\overline{\text{DRM}}$ DA	O	Drum D/A output.
75	$\overline{\text{EP}}$	O	L : EP (Not used. (open))
76	ORC SETTEI	O	H : ORC measure.
77	VD CTL	I	CTL counter input. (Fixed to "H".)
78	DEST 1	I	Destination judge input.

Pin No.	Signal	I/O	Function
79	LINE 1	O	Input selection control signal.
80	SO 1	I/O	Expanded port data.
81	CLK 1	I/O	Expanded port clock.
82	LINE 2	O	Input selection control signal.
83	NAPB	O	Audio output control signal. H : Normal audio playback.
84	PWM	O	PWM output for APC2.
85	W TAPE	O	H : Wrong tape.
86	N. C.	I	Not used. (open)
87	TX		Not used. (open)
88	VSS		GND.
89	VDD		UNSW 5V.
90	VDD		UNSW 5V.
91	NA SP	O	For normal audio. L : SP mode.
92	ENV GAIN	O	Video envelope gain change.
93	CTL STEP	O	CTL amp, STEP operation control.
94	CTL REC	O	H : CTL write.
95	$\overline{\text{V PB}}$	O	Video system playback mode reversal. L : Playback.
96	CTL INDEX	O	Index control signal rewrite. H : Erase.
97	JOG	O	H : JOG
98	REC	O	Head amplifier recording power supply.
99	$\overline{\text{SP}}$	O	L : SP mode.
100	$\overline{\text{AF}}$ SWP	O	AF switching pulse.

6-8. TIMER/TUNER CONTROL MICROPROCESSOR MB89096PF-G-173/174/175-BND (HI-6 BOARD IC302) PORT FUNCTION DESCRIPTION

Pin No.	Signal	I/O	Function
1	CL 1		Liquid crystal oscillation pin (32 kHz). (for clock)
2	CL 0		
3	MOD 0 (GND)		Operation mode specification pin (GND when used).
4	MOD 1 (GND)		
5	X 0		Liquid crystal oscillation pin (12 MHz). (for main)
6	X 1		
7	VSS		GND.
8	$\overline{\text{RESET}}$	I	Reset input pin.
9—12	N. C.	O	Not used (open)
13	$\overline{\text{S SIGHT CS}}$	O	S SIGHT chip select signal.
14	$\overline{\text{TUNER V}}$	I	TUNER V Sync signal input.
15	$\overline{\text{ASURA RESET}}$	O	S/S micom (MA-215 board IC201) reset signal.
16	$\overline{\text{CG CS}}$	O	Character generator chip select signal. (MA-215 board IC401)
17	$\overline{\text{POWER FAIL}}$	I	Power voltage drop detection pin.
18	$\overline{\text{V SYNC}}$	I	V sync input.
19	POWER CONT	O	Main power supply control signal.
20	$\overline{\text{ASURA CS}}$	O	S/S micom chip select signal. (MA-215 board IC201)
21	H DET	I	H DET signal input.
22	$\overline{\text{PDC CS}}$	O	PDC chip select signal. (PV-12 board IC652)
23	SCL	I/O	I²C BUS (clock)
24	SDA	I/O	I²C BUS (data)
25	NOT SYNC	I/O	Sync detection error.
26	C DET	I	Not used
27	F MONO	O	Tuner Audio select.
28	CMOD	I	Normally GND. 5V : Connected to micom jig.
29	MAIN/$\overline{\text{SAP}}$	O	MAIN/SAP judge signal output.
30	$\overline{\text{STEREO}}$	I/O	Stereo judge input.
31	$\overline{\text{SAP}}$	I/O	MAIN/SAP judge input.
32	SIRCS IN	I	Remote control input.
33	PLL CLOCK	O	Tuner PLL clock.
34	PLL DATA	O	Tuner PLL data.
35	PLL ENABLE	O	Tuner chip select.
36	TA MUTE	O	Tuner audio mute.
37	SIRCS OUT	O	SIRCS signal output.
38	$\overline{\text{A PRST}}$	O	Tuner sensitivity select signal for auto preset.
39—42	N. C.	O	Not used. (open)
43—48	S20—S15	O	FDP segment 20—15.
49	VDD		D 6V.
50—52	S14—S12	O	FDP segment 14—12.

Pin No.	Signal	I/O	Function
53	VFDP		−30V.
54—57	S11—S8	O	FDP segment 11—8.
58	VSS		GND
59—65	S7—S1	O	FDP segment 7—1.
66	8G	O	FDP grid 8.
67	VDD		D 6V.
68—74	7G—1G	O	FDP Grid 7—1.
75	$\overline{\text{LED D CS}}$	O	LED driver chip select signal. (MF-254 board IC401)
76	POWER CONT 2	O	Tuner power supply control.
77	SI BUS	I	Serial data input.
78	SO BUS	O	Serial data output.
79	S CLK	O	Serial communication clock.
80	MEM CS	O	EEPROM CS. (HI-6 board IC301)
81	MEM CLK	O	EEPROM CLOCK.
82	MEM DATA	I/O	EEPROM DATA.
83	AVSS		GND.
84	AFT	I	Ground wave tuner AFT detection.
85	AD 1	I	Not used.
87—91	A/D 3—A/D7	I	Membrane key reading.
92	AVDD	I	D 6V.
93	A/D8	I	Membrane key reading.
94	DEST 1	I	Destination discrimination
95	DEST 2	I	
96	A/D 11	I	Membrane key reading.
97	LANC IN	I	LANC input.
98	LANC OUT	O	LANC output.
99	BUZZER	O	Buzzer output/clock liquid crystal frequency division output.
100	VDD		D 6V

*Note MB89096PF-G-173-BND : E500CP/UX, E700 : NC2, E700EX/UX, E800NP
-174-BND : E500AP, E600B, E700 : NC1, E700AP/B, E800AP/BM/NC
-175-BND : E500IT/VP, E600VP, E700IT/VP, E800EE/EG/IT/VC

Note.
NC1 : Belgium, North European
NC2 : Spanish, Portugal

SECTION 7
ADJUSTMENTS

7-1. MECHANICAL ADJUSTMENTS

For the procedures how to adjust and check the mechanism, as well as how to replace mechanical parts, refer to the VHS Mechanical Adjustment Manual IV (H MECHANISM) (9-973-623-11).
However, for the procedures how to set the Track Shift mode, refer to the following text.

7-2. ELECTRICAL ADJUSTMENTS

See the adjusting part location diagram from on page 7-46 for the adjustment.

2-1. PREPARATION BEFORE ADJUSTMENT

2-1-1. Equipment Required

The measuring instruments used for this alignment include:

[Instruments for Use]

1) Monitor TV
2) Oscilloscope, dual-trace, bandwidth of 30MHz or more, with delay mode (A probe 10 : 1 should be used unless otherwise specified.)
3) Frequency counter (8 columns or more)
4) PAL and SECAM pattern generator
5) Digital voltmeter
6) Audio level meter
7) Audio generator
8) Attenuator
9) Distortion rate meter
10) Sound dual multiplex signal generator
11) Alignment tape
    Part No : H7099052H (MH-2)
13) Extension cable
    ① HI-6 Board
    - HI-6 board CN301 ↔ MA-215 board CN904
    - HI-6 board CN302 ↔ MA-215 board CN905

    Part No : J-6090-053-A (19 pin)

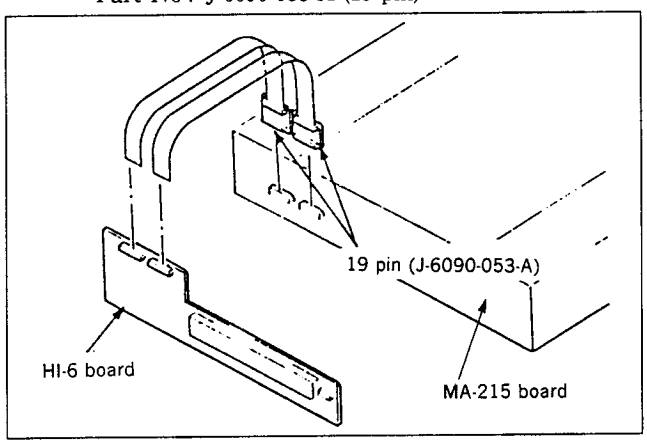


Fig. 7-2-1.

② RV-37 Board
- RV-37 board CN001 ↔ MA-215 board CN908
  Part No : J-6090-025-A (14 pin)
- RV-37 board CN002 ↔ MA-215 board CN907
  Part No : J-6090-043-A (20 pin)
- RV-37 board CN801 ↔ Drum Head flexible
  Part No : J-6090-054-A (13 pin)

③ HF-34 Board
- HF-34 board CN101 ↔ MA-215 board CN902
- HF-34 board CN102 ↔ MA-215 board CN901
  Part No : J-6090-047-A (11 pin)

④PV-12 Board
- PV-12 board CN601 ↔ MA-215 board CN903
  Part No : J-6090-048-A (10 pin)

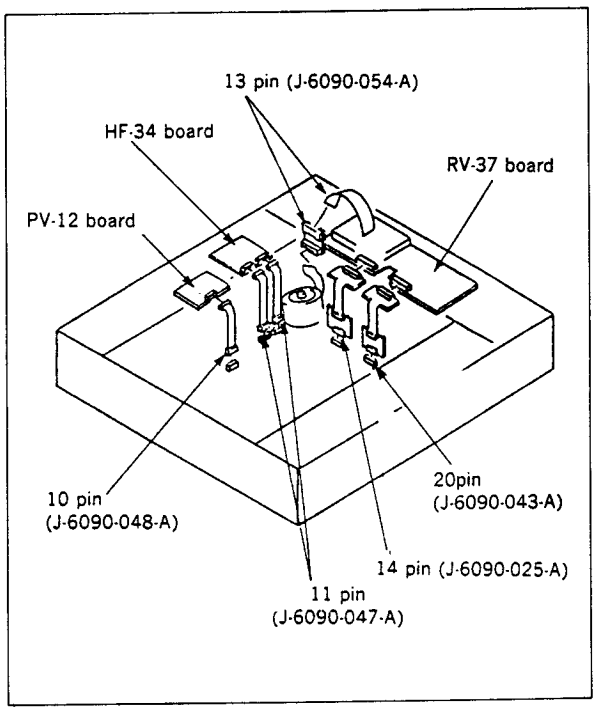


Fig. 7-2-2.

2-1-2. Equipment Connection

Unless otherwise specified, connect and adjust the measuring instruments as shown is the following diagram.

Unless otherwise specified, place the switches and controls of this unit in the following positions :

- PROGRAM switch .....LINE 1
- TAPE SPEED (SP/LP) switch .....SP

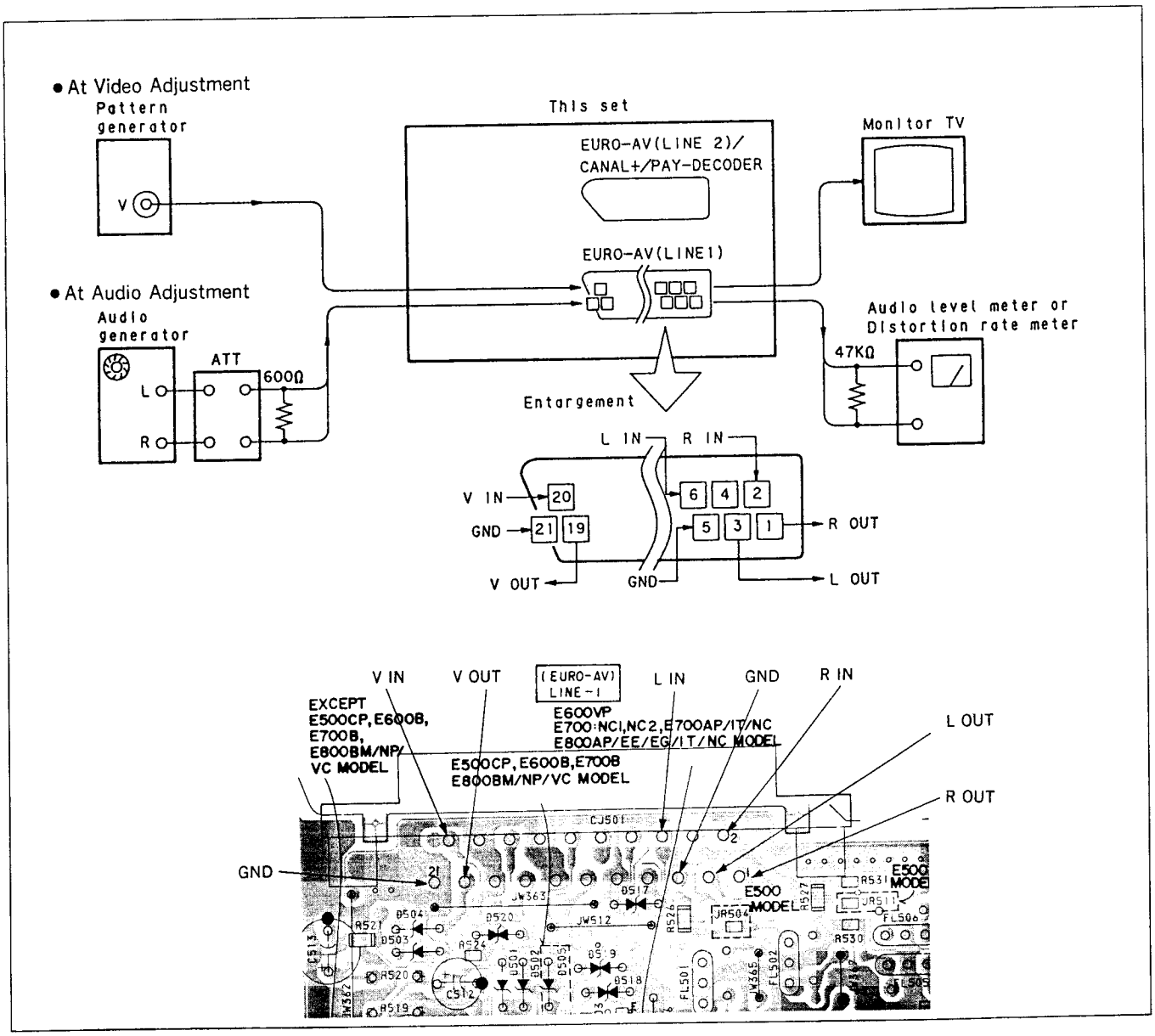


Fig. 7-2-3.

2-1-3. Check of Input Signal

Because the video signal obtained from the pattern generator is used as the adjustment signal for the adjustment, the video output signal is required to satisfy the specified value.

Connect the oscilloscope to the picture input terminal (terminal board). And check that the synchronizing signal amplitude of the video signal is approximately 0.3V, the amplitude of the picture part is approximately 0.7V, the amplitude of the burst signal is approximately 0.3V and is flat, and the ratio of level between the burst signal and the "red" signal is 0.30 : 0.66. The video signal (color bar) used for the adjustment is shown in the fig. 7-2-4.

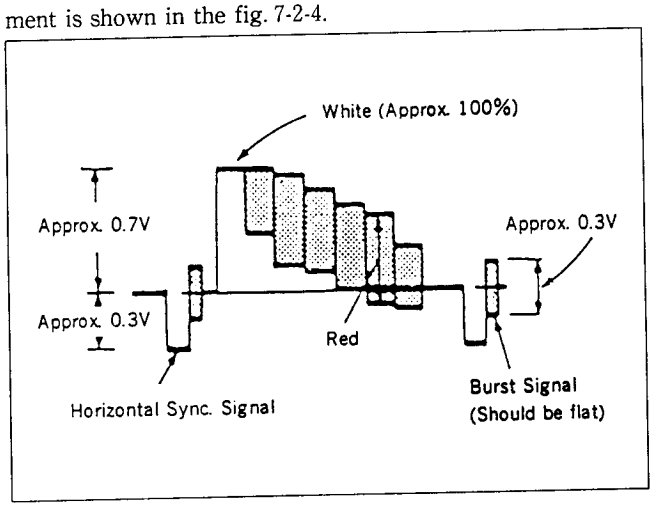


Fig. 7-2-4. Color bar signal of the pattern generator

2-1-4. Alignment Tape

• Contents of MH-2 (Normal-VHS)

	Mode	Period	Video signal	Audio signal
1	SP	10 minutes	Stair step	7kHz
2		5 minutes	——	3kHz
3		10 minutes	Color bar	1kHz
4		3 minutes	RF sweep	——

2-1-5. Specified Input-output Level and the Impedance

EURO-AV (LINE 1)

21-pin
Video input : pin 20
Audio input : pins 2 and 6
Video output : pin 19
Audio output : pins 1 and 3

EURO-AV (LINE IN 2)

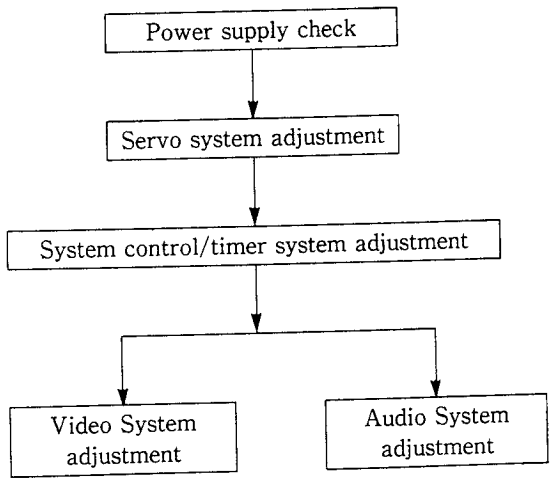
21-pin
Video input : pin 20
Audio input : pins 2 and 6

AUDIO OUT

Phono jack (2)
Rated output level : −7.5dBs
(0 dBs=0.775Vrms)
Load impedance : 47kilohms
Output impedance : less than 10kilohms

2-1-6. Adjustment Procedures

Perform the adjustment following the procedures given below.



2-2. POWER SUPPLY CHECK

2-2-1. Output Voltage Check (PS-328Board)

Mode	E-E
Measuring instrument	Digital voltmeter
38V check	
Measurement point	CN101 Pin ①
Specified value	38±3Vdc
13V check	
Measurement point	CN101 Pin ③④
Specified value	13±1Vdc
MTR12V check	
Measurement point	CN101 Pin ⑤⑥
Specified value	12.1±1.0Vdc
SW12V check	
Measurement point	CN101 Pin ⑩
Specified value	12.0±0.5Vdc
SW5V check	
Measurement point	CN101 Pin ⑫
Specified value	5.0±0.5Vdc
D 6V check	
Measurement point	CN101 Pin ⑭
Specified value	5.9±0.5Vdc
−8V check	
Measurement point	CN101 Pin ⑱
Specified value	−13±2Vdc
D 6V check	
Measurement point	CN102 Pin ②
Specified value	5.9±0.5Vdc
−30V check	
Measurement point	CN102 Pin ⑥
Specified value	−29±3Vdc

[Check Method]

1) Check that each voltage satisfies the specified value.

2-3. SERVO SYSTEM ADJUSTMENT

2-3-1. RF Switching Position Adjustment (MA-215 Board)

[Adjustment Object]

To adjust the link of the Ach and Bch of the tape playback outputs.

To make the unit compatible with other tapes and units. If this specification is not satisfied, the link will appear on the screen and the screen will be disrupted, etc

Mode	Playback (SP)
Signal	Alignment tape : MH-2 SP color bar portion
Measurement point	CH1 : Video Line out terminal CH2 : CN802 pin ③ (RF SWP) (RV-37 board)
Measuring instrument	Oscilloscope
Adjustment element	RV202
Specified value	6.5±0.5H (416±32μsec)

[Adjustment Method]

1) Set [TRACKING] switch (Remote comander) to MANUAL. ("Auto tracking" display will disappear on the display window indicator.)
2) Press the tracking buttons [▼] and [▲] and adjust the tracking position to the center.
3) Adjust to 416±32μsec (6.5±0.5H) using RV202.

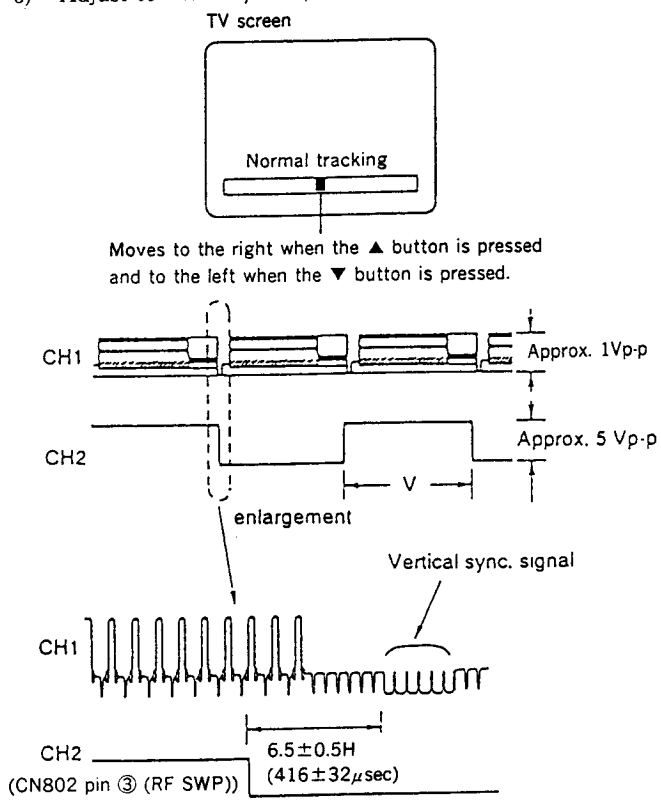


Fig. 7-2-5.

2-4. SYSTEM CONTROL/TIMER SYSTEM ADJUSTMENT

2-4-1. Clock Adjustment (HI-6 Board)

[Adjustment Object]

To raise the accuracy of the clock.

If the clock is not accurate, its error difference will gradually increase.

Measurement point	IC302 pin ⑨⑨ (BUZZER OUT)
Measuring instrument	Frequency counter (Interval counter mode)
Measuring element	CT301
Specified value	0.1249995±0.0000005sec

Note: Do not adjust CT301 except when replacing IC302.

[Adjustment Method]

1) Connect 47kΩ resistor (1-249-437-11) between pin ⑨① of IC302 and ground. (This sets the adjustments mode.)
2) Connect the frequency counter as shown in the figure below.
3) Adjust the oscillation frequency to the specified value using CT301.
4) After this adjustment, remove the resistor.

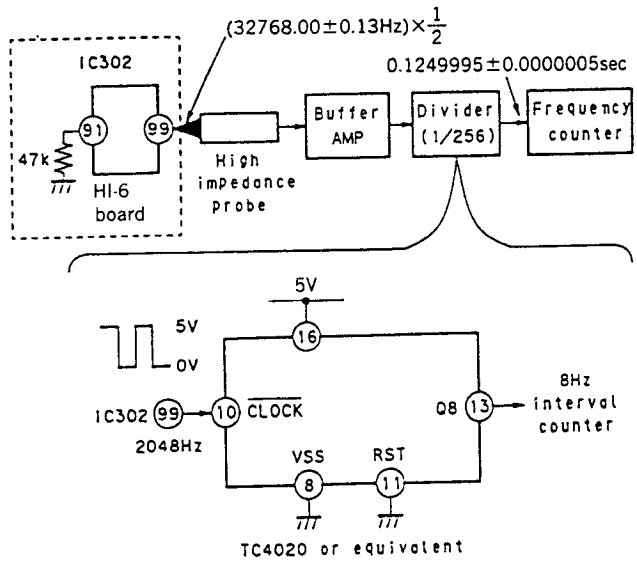


Fig. 7-2-6.

2-5. VIDEO SYSTEM ADJUSTMENT

For the video system adjustment, follow the adjustment procedures given below as a rule. The color bar video signal supplied from the pattern generator is used as the video input signal for the video system adjustment of the recording mode. Check that the signal satisfies the specified value designated in the "Check of input signal (Fig. 7-2-4).

[Adjustment Sequence]

1) X'tal OSC Check
2) SYNC AGC Check
3) White clip/Dark clip check
4) Y FM carrier frequency check
5) Playback Y Level check
6) SECAM DET adjustment

2-5-1. X'tal OSC Check (RV-37 Board)

Mode	Playback
Signal	Alignment tape: Color bar portion
Measurement point	IC001 pin ㉗
Measuring instrument	Oscilloscope and Frequency counter
Specified value	PAL: 4,433619±82Hz

Note: A frequency counter should be connected through a buffer ampifier (oscilloscope, etc.) having a high impedance and a low capacitance.

[Check Method]

1) Check that the oscillation frequency satisfies the specified value and that the oscillation voltage is 450±200mVp-p.

4,433619±82Hz (PAL)

Fig. 7-2-7.

2-5-2. SYNC AGC Check (RV-37 board)

Mode	E-E
Signal	Color bar
Measurement point	Video output terminal
Measuring instrument	Oscilloscope
Specified value	A=2.05±0.14Vp-p

[Check Method]

1) Check that the SYNC AGC level (A) satisfies the specified value.

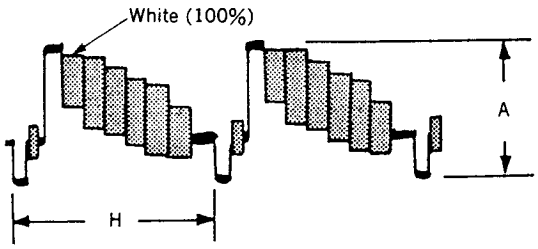


Fig. 7-2-8.

2-5-3. White Clip/Dark Clip Check (RV-37 Board)

Mode	E-E
Signal	Color bar
Measurement point	IC001 pin ⑦
Measuring instrument	Oscilloscope
Specified value	White clip: 190±15% Dark clip: 52±10%

[Check Method]

1) Check that the white clip level is 190±15% to the white (100%) level.
2) Check that the dark chip level is 52±10% to the white (100%) level.

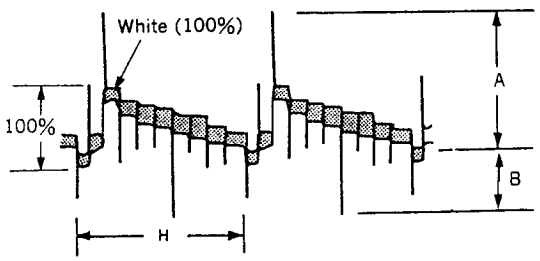


Fig. 7-2-9.

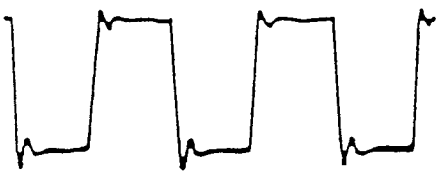
2-5-4. Y FM Carrier Frequency Check (RV-37 Board)

Mode	E-E
Signal	No-signal
Measurement point	Q34 Emitter
Measuring instrument	Frequency counter
Specified value	3.40±0.05MHz

Note: A frequency counter should be connected through a buffer amplifier (oscilloscope, etc.) having a high impedance and a low capacitance.

[Check Method]

1) Check that the carrier frequency satisfies the specified value.



3.40±0.05MHz

Fig. 7-2-10.

2-5-5. Playback Y Level Check (RV-37 Board)

Mode	Playback
Signal	Alignment tape: SP mode color bar portion
Measurement point	Video utpuc terminal
Measuring instrument	Oscilloscope
Specified value	A=2.05±0.18Vp-p

[Check Method]

1) Check that the playback Y level satisfies the specified value.

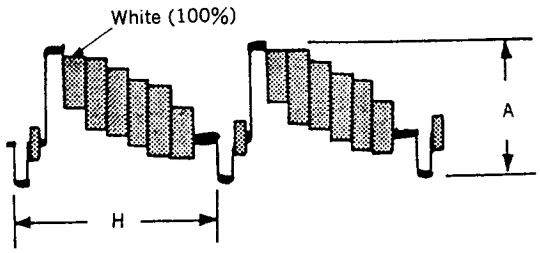


Fig. 7-2-11.

2-5-6. SECAM DET Adjustment (RV-37 Board)
(SLV-E600B/E700B/E800B only)

Mode	E-E
Signal	SECAM Color bar
Measurement point	IC201 pin ⑪
Measuring instrument	Oscilloscope
Adjusting element	RV201
Specified value	4.8±0.1Vp-p

[Adjusting Method]

1) Adjust RV201 so that the amplitude of 1/2 fh waveform becames 4.8±0.1Vp-p.

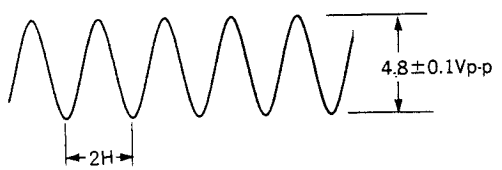


Fig. 7-2-12.

2-6. AUDIO SYSTEM ADJUSTMENT

- For the adjustment of the audio system, perform in the SP mode if there is no special notes. Use the alignment tape.
- Adjust both LCH and RCH.

[Connecting Instruments]

- **Hi-Fi Audio System Adjustment**

Perform the adjustment setting the switches and controls on the following positions if there is no special indications.

PROGRAM switch .....LINE 1

AUDIO MONITOR .....Stereo

[Adjustment Sequence]

1. VCO f_0 adjustment
2. Deviation adjustment
3. Band pass filter f_0 Adjustment
4. AF Switching pulse position adjustment

2-6-1. VCO f_0 Adjustment (HF-34 Board)

[Adjustment Object]

To attain HiFi audio compatibility.

If this specification is not satisfied, the sound will be distorted.

Mode	Recording
Signal	No-signal
Measuring instrument	Frequency counter
1.3MHz adjustment	
Measurement point	IC101 pin ⑲ (Lch RF) (JL111)
Adjustment element	RV103 (Lch)
Specified value	1300±1kHz
1.7MHz adjustment	
Measurement point	IC101 pin ㉚ (Rch RF) (JL110)
Adjustment element	RV102 (Rch)
Specified value	1700±1kHz

Note : Connect the frequency counter through the buffer amplifier (oscilloscope, etc) with high input resistance (1MΩ or more) and low capacity (10pF or less).

[Adjustment Method]

1) Connect the frequency counter with each measurement points.
2) Adjust with RV103 and RV102 so that the frequency satisfies each specified value.

2-6-2. Deviation Check (HF-34 Board)

Mode	Recording
Signal	400Hz, −12dBs : CN102 pin ①, ③
Measurement point	IC101 pin ⑲ (Lch) (JL111) IC101 pin ㉚ (Rch) (JL110)
Measuring instrument	Frequency counter
Specified value	50±5kHz

[Check Method]

1) Check that the frequency satisfies the specified value.

○ HF-34 Board (COMPONENT SIDE)

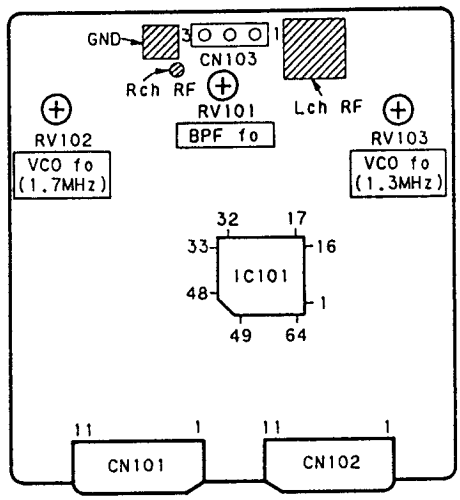


Fig. 7-2-13.

2-6-3. Band Pass Filter f_0 Adjustment (HF-34 board)

[Adjustment Object]

To separate the carrier accurately and ensure that the filter for cutting the video signal functions normally.

If this specification is not satisfied, the sound will be distored.

Mode	Playback
Signal	1.505MHz, 200mVp-p : CN103 pin ①
Measurement point	IC101 pin ⑲ (Lch RF) (JL111) IC101 pin ㉚ (Rch RF) (JL110)
Measuring instrument	Oscilloscope
Adjustment element	RV101
Specified value	Adjust the A and B amplitudes to the same level. (A−B=±2mVp-p)

[Connection]

1) Disconnect CN103 of the HF-34 board and input the 1.505MHz and 200mVp-p sine wave from the signal generator to Pin ① of CN103.

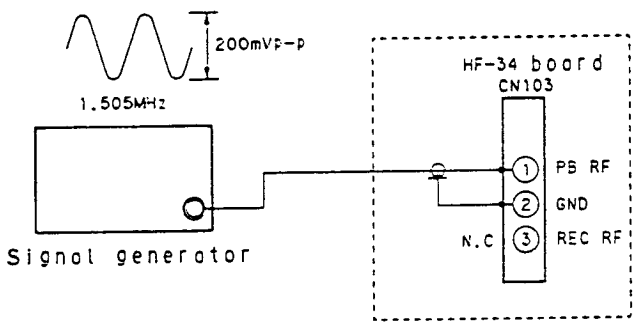


Fig. 7-2-14.

[Adjustment Method]

1) Rotate RV101 fully in the counterclockwise direction (↺) as seen from the component side.
2) Rotate RV101 slowly in the clockwise direction (↻) until the amplitudes of Pin ⑲ of IC101 and Pin ㉚ of IC101 become equal.

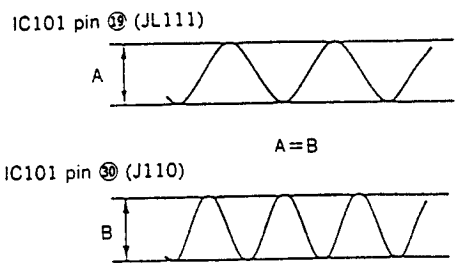


Fig. 7-2-15.

2-6-4. AF Switching Position Adjustment (MA-215 Board)

[Adjustment Object]

To adjust the link of the Ach and Bch of the tape playback outputs.

If this specification is not satisfied, the noise will increase and cracking sounds will be produced.

Mode	Playback
Signal	Alignment tape
Measurement point	CH1 : IC101 pin ⑲ (Lch RF) (JL111) CH2 : CN802 pin ③ (RF SWP) (RV-37 board)
Measuring instrument	Oscilloscope
Adjustment element	RV201
Specified value	No dropouts in the RF signal

[Adjustment Method]

1) Set [TRACKING] switch (Remote comander) to MANUAL. ("Auto tracking" display will disappear on the display window indicator.)
2) Press tracking buttons [▼] and [▲] and adjust the tracking position to the center.
3) Adjust to the minimum specified value using RV201.

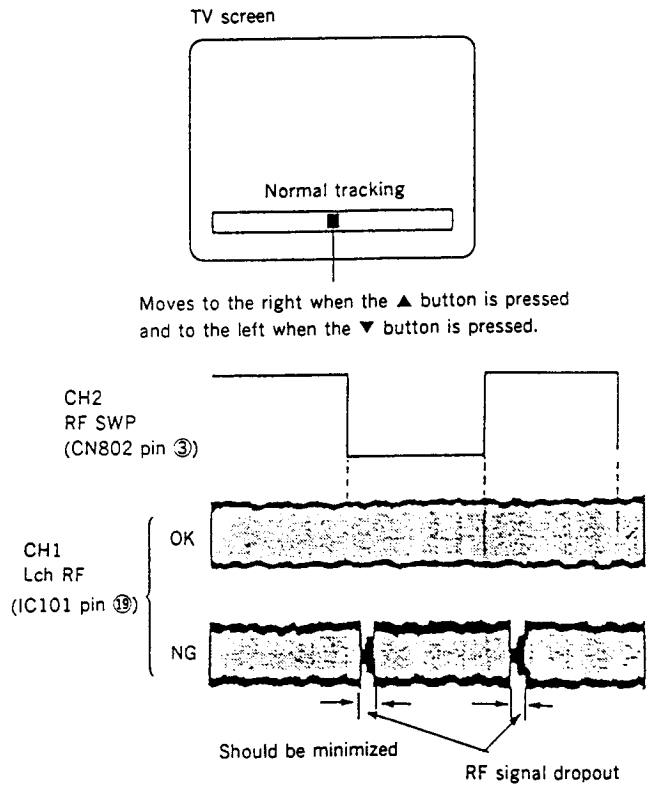


Fig. 7-2-16.

- **Normal Audio System Adjustment**

- Adjust in the SP mode if there is no special indications.
- Perform the adjustment setting the switch on the following positions.

PROGRAM switch .....LINE 1

AUDIO MONITOR switch.....NORMAL*1

* 1: No indicates on the display window indicator and monitor TV.

[Adjustment Method]

1. ACE head adjustment....Refer to the VHS mechanical part adjustment manual IV
2. Recording bias adjustment
3. E-E output level check

2-6-5. ACE Head Adjustment

Refer to the "VHS Mechanical adjustment manual IV" (9-973-623-11).

2-6-6. Recording Bias Adjustment (MA-215 Board)

Mode	Self-record playback
Signal	400Hz, −27.5dBs } Audio line in 1 7kHz, −27.5dBs } (L or R)
Measurement point	Audio line out (L or R)
Measuring instrument	Audio level meter
Adjustment element	RV887
Specified value	0±1dBs

[Adjustment Method]

1) Supply a signal of 400Hz, −27.5dBs to Audio Line Input.
2) Connect the audio level meter to the Audio Line Output.
3) Adjust the attenuator so that the audio level meter will indicate −27.5dBs.
4) Make recording in the SP mode.
5. Set an audio line input signal to 7kHz and make record-ng.
6) Playback a recorded portion, and measure output levels at 400Hz and 7kHz.
7) Confirm that the 7kHz playback output levels within a range of the 400Hz playback output level 0±1dB. When it is out of this range, sdjust RV887 and repeat the steps 1) through 7) above.

	Direction of Rotating RV887
400Hz level>7kHz level	Clockwise (↻)
400Hz level<7kHz level	Counterclockwise (↺)

2-6-7. E-E Output Level Check

Mode	E-E
Signal	400Hz, −7.5dBs: Audio Line in 1
Measurement point	Audio line output terminal
Measuring instrument	Audio level meter
Specified value	−7.5±2dBs

[Checking Method]

1) Input signal of 400Hz and −7.5dBs to the L and R channel of the audio input at the same time.
2) Check that the audio output level is −7.5±2dBs.

2-6-8. Overall Output Level and Distortion Factor Check

Mode	Self-record playback
Signal	400Hz, −7.5dBs: Audio Line Input 1 terminals, left and right
Measurement point	Audio Line Output terminals, left and right
Measuring instrument	Audio level meter and Distortion meter
Specified value	Playback Level: −7.5±3dBs Distortion: 4.0% or less

[Check Method]

1) Record signal.
2) Playback the recorded portion.
3) Check that the output level is −7.5±3dBs.
4) Check that the distortion factor is 4.0% or less on the left and right side.

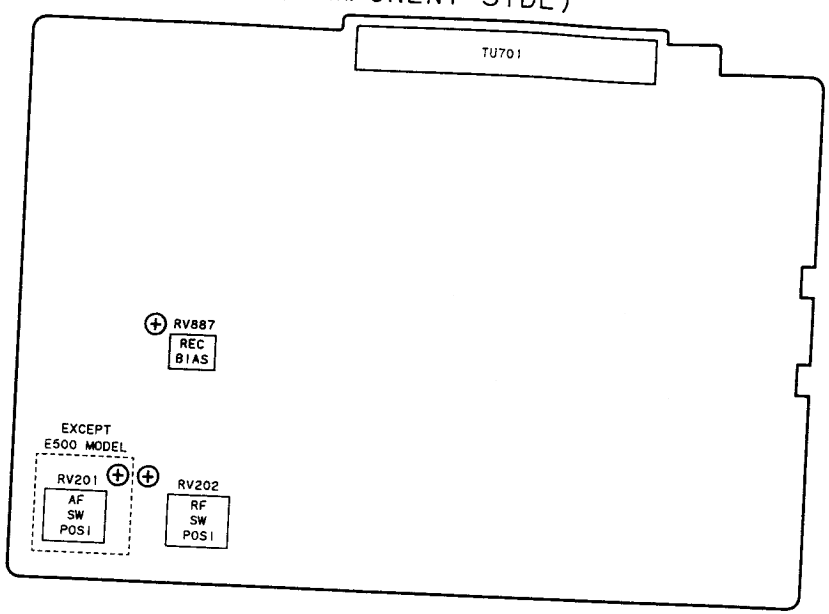
2-6-9. Overall Noise Level Check

Mode	Self-record playback
Signal	No signal (Insert a shorting plug into the Audio Line Input jacks, left and right.)
Measurement point	Audio Line Output terminals, left and right
Measuring instrument	Audio level meter
Specified value	−46dBs or less

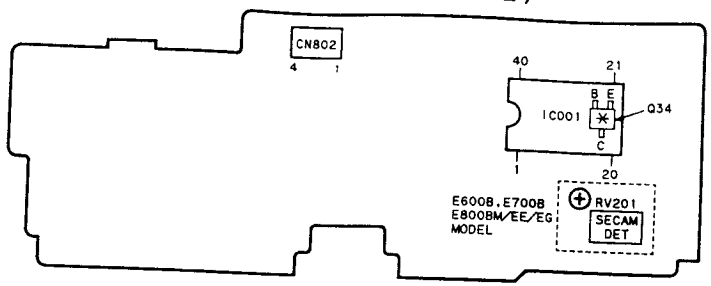
[Checking Method]

1) Record.
2) Playback recorded portion.
3) Check that noise level is −46dBs or less on the left and right side.

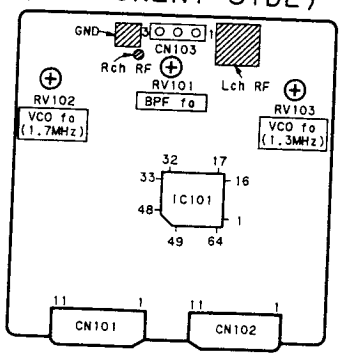
MA-215 BOARD (COMPONENT SIDE)



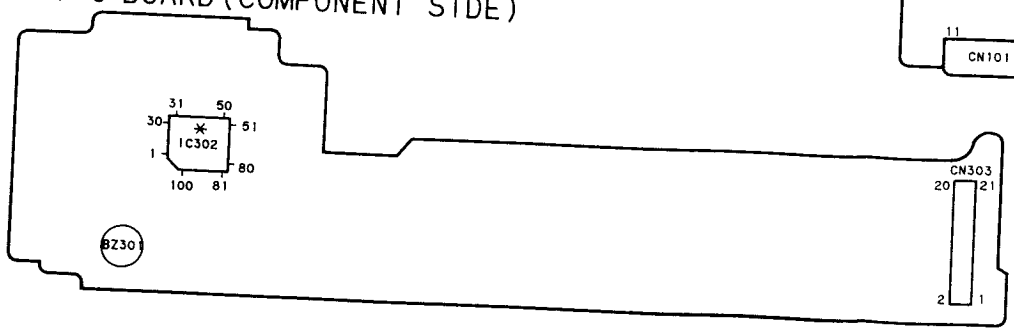
RV-37 BOARD (COMPONENT SIDE)



HF-34 BOARD (COMPONENT SIDE)



HI-6 BOARD (COMPONENT SIDE)



*Part on the conductor side.